

(FILE 'HOME' ENTERED AT 15:50:58 ON 01 FEB 2007)

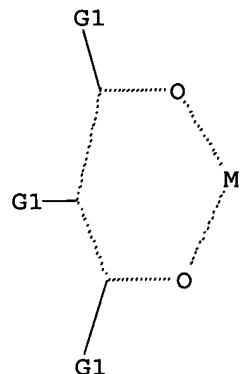
FILE 'REGISTRY' ENTERED AT 15:51:34 ON 01 FEB 2007

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 H, Me, Et, n-Pr, i-Pr, n-Bu, i-Bu, Ph, CF3, CCl3, CBr3

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 15:51:59 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 9786 TO ITERATE

20.4% PROCESSED 2000 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 189791 TO 201649
PROJECTED ANSWERS: 27812 TO 32468

L2 50 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 15:52:05 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 196553 TO ITERATE

100.0% PROCESSED 196553 ITERATIONS
SEARCH TIME: 00.00.02

31098 ANSWERS

L3 31098 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 15:52:14 ON 01 FEB 2007

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10/510476

Polyoxymethylene

Diketmate Catalyst

STN Search 2/1/07 p1/30

by PEX'r

P. Nazario-Gonzalez

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2/1/07
PN6 pr

FILE COVERS 1907 - 1 Feb 2007 VOL 146 ISS 6
FILE LAST UPDATED: 31 Jan 2007 (20070131/ED)

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<http://www.cas.org/infopolicy.html>

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=> s l3 and py<=2002
      36035 L3
      22869042 PY<=2002
L4      29636 L3 AND PY<=2002

=> s l4 and salts
      614704 SALTS
L5      2325 L4 AND SALTS

=> s l5 and metal oxide
      1710547 METAL
      1727116 OXIDE
      72817 METAL OXIDE
      (METAL(W)OXIDE)
L6      40 L5 AND METAL OXIDE
```

=> d 1-40 bib abs

L6 ANSWER 1 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:729554 CAPLUS
DN 137:218464
TI Reversible double-super affinity film and its preparing process and application
IN Wang, Rong; Jiang, Fengzhi; Song, Yanlin; Zhu, Daoben; Jiang, Lei
PA Inst. of Chemistry, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 35 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1315476	A	20011003	CN 2000-109176	20000614 <--
	CN 1128187	B	20031119		
PRAI	CN 2000-109176	A	20000614		
	CN 2000-103574		20000329		
AB	The preparing process comprises: (1) adding 0.5-32 mol metal salt (composed of 80-98% titanium salt and 2-20% other metal salts) into 70-98 mol organic solvent, dispersing under ultrasonic to obtain a transparent solution; (2) adding 0.1-6 mol stabilizer in the transparent solution, adding 0.01-1.63 mol catalyst dropwise under stirring, reacting for 0.1-8 h to obtain metal salt mixture with part hydrolyzing products; (3) standing and aging for 3-8 h to obtain transparent sol with nanometer particles; (4) coating the sol on the surface of the substrate, drying at room temperature, sintering at 550-720° for 0.05-1.5 h to obtain a transparent film; and (5) inducing the transparent film under double-super affinity field				

for 10 min to 5 h to obtain the reversible double-super affinity film. The titanium salt is selected from tetra-Bu titanate, tetra-Et titanate, tetra(iso-propyl) titanate, tetra(2-ethyl-hexyl) titanate, tetraheptadecyl titanate, di(iso-propoxy) diacetylacetone titanium, di(n-butoxy) di(triethanolamino) titanium, dihydroxy di(lactic acid) titanium; and the other metal salts are selected from tin tetrachloride, tin acetate, zinc chloride, zinc acetate, zinc nitrate, tungsten hexachloride, tungsten dichloride dioxide, aluminum acetate hydroxide dihydrate, aluminum chloride, isopropoxy aluminum, strontium dichloride hexahydrate, strontium carbonate, indium trichloride, indium nitrate pentahydrate, indium acetate, ammonium molybdate, niobium pentachloride, silicon tetrachloride, silicon tetrabromide, tetra-Et silicate, tetra-Bu silicate, dimethoxy diethoxy silane, di-Me dichloro silicon, zirconium tetrachloride, zirconium nitrate pentahydrate and zirconium hypochlorite. The organic solvent is selected from ethanol, propanol, iso-propanol, n-butanol, iso-butanol, acetone, trichloromethane, n-hexane, benzene, toluene and tetrachloromethane. The stabilizer is selected from glycol, diglycol, triglycol, glycerin and propane-1,3-diol. The catalyst is selected from hydrochloric acid, acetic acid, nitric acid, sulfuric acid and ammonia. The inducing field is UV light, plasma, laser, 400- 500 nm visible light, Ar⁺ ion bombing or microwave. The reversible double-super affinity film is composed of TiO₂ nanometer particles 80-98, and metal oxide nanometer particles 2-20%, and the diameter of the particles is 50-80 nm. The metal oxide nanometer particles are selected from SnO₂, ZnO, WO₃, Al₂O₃, SrTiO₃, In₂O₃, MoO₃, Nb₂O₃, SiO₂, ZrO₂ and their mixts. The reversible double-super affinity film could be used on the surface of glass, mirror, metal or ceramic for antifogging or self-cleaning, or on the surface of axis for modifying, or on the surface of filler of chromatog. column for modifying.

2/1/07
PNG
P3

L6 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:702620 CAPLUS
DN 138:179659
TI Synthesis and characterization of nano-sized nickel(II), copper(I) and zinc(II) oxide nanoparticles
AU Illy-Cherrey, S.; Tillement, O.; Dubois, J. M.; Massicot, F.; Fort, Y.; Ghanbaja, J.; Begin-Colin, S.
CS Ecole des Mines, INPL, UMR CNRS 7584, Laboratoire de Science et Genie des Materiaux Metalliques, Nancy, F-54042, Fr.
SO Materials Science & Engineering, A: Structural Materials: Properties, Microstructure and Processing (2002), A338(1-2), 70-75
CODEN: MSAPE3; ISSN: 0921-5093
PB Elsevier Science B.V.
DT Journal
LA English
AB Ultrafine, equiaxed and monodisperse oxide particles with an average grain diameter at 1-10 nm were prepared by a two-step chemical approach: the chemical reduction of metallic salts by activated sodium hydride in THF solvent, followed by oxidation of the metallic species with small amts. of O₂-N₂ gas. Such particles are easily, quant. and reproducibly prepared and are stable on storage. The average crystallite sizes and the agglomeration of particles were estimated from dark-field transmission electron micrographs. The nature of the chemical bonding was studied by EELS and structural information were obtained using selected area electron diffraction patterns.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:253030 CAPLUS
DN 136:280901
TI Manufacture of storage-stable coating compositions for spectacle lenses
IN Watanabe, Jun; Itoh, Takanobu

PA Hoya Corporation, Japan
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

2/1/57
pN6
p4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1193285	A2	20020403	EP 2001-121723	20010918 <--
	EP 1193285	A3	20030129		
	EP 1193285	B1	20050525		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002105398	A	20020410	JP 2000-300143	20000929 <--
	JP 3526439	B2	20040517		
	JP 2003286439	A	20031010	JP 2003-64831	20000929
	AU 748830	B2	20020613	AU 2001-69979	20010910 <--
	AT 296326	T	20050615	AT 2001-121723	20010918
	CA 2357472	A1	20020329	CA 2001-2357472	20010919 <--
	CA 2357472	C	20020329		
	CN 1346987	A	20020501	CN 2001-140928	20010927 <--
	US 2002064665	A1	20020530	US 2001-965867	20011001 <--
	US 6605361	B2	20030812		
PRAI	JP 2000-300143	A	20000929		

OS MARPAT 136:280901

AB The coating composition is manufactured by adding an acetylacetonate metal salt and

an aliphatic amine to a liquid mixture containing (A) metal oxide colloid particles and (B) an organosilicon compound. Thus, γ -glycidoxypyrpyltrimethoxysilane 15, methanol sol of modified stannic oxide-zirconium silicon oxide composite 49 and 0.001 N HCl 3.5 parts were mixed for 50 h, blended aluminum trisacetylacetonate 0.6, diisobutylamine 0.01 and propylene glycol monomethyl ether 30 parts for 80 h, applied to a treated lens substrate (EYAS) and cured at 120° for 60 min, showing good storage stability and scratch resistance.

L6 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:169483 CAPLUS

DN 136:225465

TI Epitaxy of aluminum rare earth metal oxide thin film on single crystal substrate

IN Yamaguchi, Iwao; Manabe, Takaaki; Kumagaya, Toshiya; Mizuta, Susumu; Suzuki, Shigeru; Yamaguchi, Yasuaki; Shimizu, Norio

PA Sangyo Gijutsu Sogo Kenkyusho, Japan; National Institute of Advanced Industrial Science and Technology

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002068900	A	20020308	JP 2000-265134	20000901 <--
	JP 3507887	B2	20040315		
PRAI	JP 2000-265134		20000901		

AB A rare earth metal-containing compound is dissolved in a solvent then the resulting uniform solution is applied on an Al₂O₃ single crystal substrate, dried, and fired to give the Al rare earth metal oxide epitaxial film. The Al₂O₃-supported thin film, preferably LaAlO₃ thin film, is suitable for intermediate layer for Al₂O₃-supported perovskite oxide ceramic superconductor with large area.

L6 ANSWER 5 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:169476 CAPLUS

2/1/07
PN6
PS

DN 136:225454.
 TI Yttrium barium copper oxide superconductors and their manufacture on alumina substrate with large areas
 IN Manabe, Takaaki; Yamaguchi, Iwao; Kumagaya, Shunya; Mizuta, Susumu; Suzuki, Shigeru; Yamaguchi, Yasuaki; Shimizu, Norio
 PA Sangyo Gijutsu Sogo Kenkyusho, Japan; National Institute of Advanced Industrial Science and Technology
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002068892	A	20020308	JP 2000-265066	20000901 <--
	JP 3612556	B2	20050119		
PRAI	JP 2000-265066		20000901		

AB The superconductor comprises (A) an alumina single crystal substrate, (B) an epitaxial layer of rare metal-Al mixed oxides with molar ratio of rare metal/Al/O of 1/1/3 having perovskite structures, and (C) a superconductor layer of YBa₂Cu₃O₇, wherein the middle epitaxial layer is manufactured by applying an organic solution of rare metal compds. on the substrate and firing.

L6 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2001:224350 CAPLUS
 DN 134:260534

TI Metal-exchanged carboxylato-alumoxanes and process of making metal-doped alumina
 IN Kareiva, Aivaras; Bai, Chuansheng; Harlan, Charles Jeffrey; Macqueen, D. Brent; Barron, Andrew R.; Cook, Ronald L.
 PA Rice University, USA; Tda Research, Inc.
 SO U.S., 9 pp.
 CODEN: USXXAM

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6207130	B1	20010327	US 1998-58587	19980410 <--
PRAI	US 1997-43860P	P	19970411		

AB A method was developed for the solution-based metal exchange of carboxylato-alumoxanes [Al(O)_x(OH)_y(O₂CR)_z]_n with a wide range of metal cations. Metal-exchanged carboxylato-alumoxanes are new, particularly those in which .apprx.10% to .apprx.50% or more of the Al ions are exchanged for other metal ions. Addnl., the carboxylic acid ligands can be stripped from the boehmite core of metal-exchanged carboxylato-alumoxanes at low temperature giving metal-exchanged boehmite particles. These new material phases can be used as intermediates for preparation of mixed metal aluminum oxide materials. Thermolysis of the metal-exchanged carboxylato-alumoxanes or metal-exchanged boehmite particles results in doped aluminas (M/Al₂O₃), binary (MAlO_x), ternary (MM'AlO_x) and even more complex metal aluminum oxide compds., where M and M' are metal ions other than those of aluminum and are preferably those of Lanthanide metals or transition metals. The method gave pure phase materials as well as the preparation of metastable metal aluminum oxide phases. The carboxylato-alumoxanes were prepared by the reaction of boehmite (or pseudoboehmite) with carboxylic acids in a suitable solvent. Up to at least half of the aluminum cations in the boehmite lattice of the carboxylato-alumoxanes can be replaced by the reaction of metal acetylacetonates with the carboxylato-alumoxane in a suitable solvent. The metal exchange reaction can also be carried out by reaction with soluble metal salts. Reactions of boehmite with the metal acetylacetonates (or soluble metal salts) do not lead to the metal exchange reaction observed for the carboxylato-alumoxanes.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

2/1/07
p26
p26

L6 ANSWER 7 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:220269 CAPLUS
DN 134:238650
TI Production method of fire-resistant epoxy resin foams
IN Inoue, Akira; Inoguchi, Yasushi
PA Asahi Fiber Glass Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001081223	A	20010327	JP 1999-259419	19990913 <--
PRAI	JP 1999-259419		19990913		

AB Epoxy resin foams are obtained by foaming-curing mixts. comprising (A) epoxy resins with ≥ 2 epoxy groups 100, (B) metal oxides 1-20, (C) metal hydroxides 50-300, (D) blowing agents 1-50, (E) foam regulators 0.01-10, (F) organic metal compound curing catalysts 0.01-5, (G) P compds. obtained by dehydration condensation of phosphoric acid and/or polyphosphoric acid with metal oxides and/or metal hydroxides 10-100, (H) urea 0.1-10, (I) amine curing catalysts 0.01-5 parts, where epoxy resin main compns. comprising A-F and phosphoric acid type curing compns. comprising G-I are prepared sep. and mixed to give the mixts. Thus, main composition comprising phenol novolak polyglycidyl ether 100.0, calcium oxide 5.0, stearic acid-treated aluminum hydroxide (average particle size 10 μm) 120.0, dimethylpolysiloxane-polyoxyalkylene 1.0, dibutyltin oxide 0.5, 1,1-dichloro-1-fluoroethane 15.0 parts 100, P compound comprising 80% phosphoric acid 100.0, phosphoric acid-ethylene copolymer 3.8, aluminum hydroxide (average particle size 50 μm) 15.0, and zinc oxide 10.0 parts 60.0, triethylenediamine 2.0, and urea 5.0 parts gave a foam having free foam d. 100 kg/m³ and good compression strength, dimensional stability (at 100° for 72 h, at 60° and 90 RH% for 72 h), and fire resistance.

L6 ANSWER 8 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:36228 CAPLUS
DN 134:118234
TI Catalysts comprising zeolites, Group VIII metals and additional metals introduced as water-soluble organometallic compounds, for hydrocarbon conversion processes
PA Institut Francais du Petrole, Fr.
SO Fr. Demande, 22 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2792549	A1	20001027	FR 1999-5293	19990426 <--
	FR 2792549	B1	20010601		
PRAI	FR 1999-5293		19990426		

OS MARPAT 134:118234
AB Catalysts suitable for hydrocarbon conversion processes, e.g., for isomerization, dismutation or transalkylation of aromatic hydrocarbons, comprise a mol. sieve (zeolite) support, a metal oxide binder, ≥ 1 Group VIII metals, and ≥ 1 metals chosen from Ge, Sn, Pb, Re, Nb, Ga, In, Tl. The catalysts are prepared by impregnation of the support.

L6 ANSWER 9 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

2/1/07
 PW6
 p6

AN 2001:36227 CAPLUS
 DN 134:118233
 TI Preparation of a catalyst comprising Group VIII metals and additional
 metals introduced as water-soluble organometallic compounds, for
 hydrocarbon conversion processes
 IN Morin, Stephane; Le Peltier, Fabienne; Didillon, Blaise; Brunard, Nathalie
 PA Institut Francais du Petrole, Fr.
 SO Fr. Demande, 22 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2792548	A1	20001027	FR 1999-5292	19990426 <--
	FR 2792548	B1	20010518		
	DE 10020049	A1	20010111	DE 2000-10020049	20000422 <--
	GB 2353734	A	20010307	GB 2000-10074	20000425 <--
	GB 2353734	B	20030402		
	JP 2000334302	A	20001205	JP 2000-126153	20000426 <--
PRAI	FR 1999-5290	A	19990426		
	FR 1999-5291	A	19990426		
	FR 1999-5292	A	19990426		

OS MARPAT 134:118233
 AB Catalysts suitable for transformation of hydrocarbons, e.g., for
 dehydrogenation of aliphatic hydrocarbons, especially C3-22-paraffins,
 comprise a
 metal oxide support, a binder, ≥ 1 Group VIII
 metals, and ≥ 1 metals chosen from Ge, Sn, Pb, Re, Nb, Ga, In, Tl.
 The metals are introduced into the support by sol-gel processing or drop
 coagulation.

L6 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2000:847902 CAPLUS
 DN 134:30443
 TI Cage-like silsesquioxane-containing compositions useful for manufacture of
 optical films
 IN Kita, Hiroshi; Takiyama, Nobuyuki
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000334881	A	20001205	JP 1999-150069	19990528 <--
PRAI	JP 1999-150069		19990528		

OS MARPAT 134:30443
 AB The compns. can be a metal oxide sol or gel composition
 containing a cage-like silsesquioxane, e.g., [RSiO1.5]8, [RSiO1.5]10,
 [RSiO1.5]12 and [RSiO1.5]14 (R = H, alkyl, alkenyl, aryl) in metal
 alkoxide or metal salt, a resin composition containing a cage-like
 silsesquioxane
 in a polymer or a polymer-composite metal oxide sol or
 gel composition containing a cage-like silsesquioxane in metal alkoxide- or
 metal
 salt-combined polymer. The title films with uniform micro void, low
 refractive index and high stiffness are manufactured by spin-coating one of the
 compns. on a transparent substrate such as acrylate panel and radiating
 under UV light and can be used as functional optical films such as
 antireflective films.

L6 ANSWER 11 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

2/1/07
PN6
PP

AN 2000:467818 CAPLUS
DN 133:81845
TI Method of producing solution-derived metal oxide thin films
IN Boyle, Timothy J.; Ingersoll, David
PA Sandia Corporation, USA
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6086957	A	20000711	US 1999-321911	19990528 <--
PRAI	US 1999-321911		19990528		

AB A method of preparing metal oxide thin films by a solution method. A β -metal β -diketonate or carboxylate compound, where the metal is selected from Groups 8, 9, 10, 11, and 12 of the Periodic Table, is solubilized in a strong Lewis base to form a homogeneous solution. This precursor solution forms within minutes and can be deposited on a substrate in a single layer or a multiple layers to form a metal oxide thin film. The substrate with the deposited thin film is heated to change the film from an amorphous phase to a ceramic metal oxide and cooled.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:349105 CAPLUS
DN 133:6151
TI Procedure for the Hydroxylation of benzene with hydrogen peroxide
IN Notheis, Ulrich; Konietzki, Frank; Maier, Wilhelm F.; Stoeckmann, Marion
PA Bayer A.-G., Germany
SO Ger. Offen., 8 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19853491	A1	20000525	DE 1998-19853491	19981119 <--
PRAI	DE 1998-19853491		19981119		

AB The available invention refers to a procedure for the catalytic hydroxylation of benzene with H₂O₂ in presence of amorphous micro-porous oxide mixture, prepared by hydrolysis and cocondensation of metal salts or alkoxides. E.g., a catalyst, prepared from iron(III) acetylacetonate, cerium(III) acetylacetonate, aluminum(III) sec-butoxide and tetraethoxysilane treated with HCl in EtOH, used for hydroxylation of PhH, gave 21% product which was 73% selective for phenol.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:691136 CAPLUS
DN 131:316579
TI Adhesive and encapsulating material with fluxing properties and production of an electronic device using it
IN Craig, Hugh Patrick; Lowrie, David John James
PA Multicore Solders Limited, UK
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

2/1/07
pN6
p8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9954372	A1	19991028	WO 1999-GB1236	19990422 <--
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
	AU 9936179	A	19991108	AU 1999-36179	19990422 <--
	GB 2353528	A	20010228	GB 2000-28470	19990422 <--
	JP 2002512278	T	20020423	JP 2000-544710	19990422 <--
	US 6971163	B1	20051206	US 2001-673992	20010116
PRAI	GB 1998-8587	A	19980422		
	GB 1998-21162	A	19980929		
	WO 1999-GB1236	W	19990422		

AB In attachment of an elec. component to an elec. termination on a component-carrying substrate by a solder bump technique, a thermally curable adhesive composition is used for encapsulating purposes which comprises a thermosetting polymer and a chemical crosslinking agent which has fluxing properties but which is unreactive or of severely restricted reactivity with the polymer without the action of heat and/or a catalyst. The composition is to be thermally curable when heated to soldering temps. in a reaction which is catalyzable merely by metal oxide fluxed from metal surfaces by the crosslinking agent, then dissolved in the thermosetting polymer.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:431806 CAPLUS
DN 131:122771
TI Substrates coated with transition metal oxides showing neutral reflection color and their manufacture
IN Kato, Akemi; Sanada, Yasuhiro
PA Asahi Glass Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11189434	A	19990713	JP 1997-358053	19971225 <--
PRAI	JP 1997-358053		19971225		
AB	The title substrates have top coatings made of oxides of Co, Cr, Mn, Fe, Ni, Cu, Zn, and/or lanthanoid, and intermediate layers having n equal or larger than that of the substrate and equal or smaller than those of the oxides. The manufacture method is also claimed. Preferably, the oxides are prepared by sol-gel process using polyethylene glycol oligomers and salts of the metals. The transition metal oxide coatings show neutral reflection color, and excellent durability.				

L6 ANSWER 15 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:364937 CAPLUS
DN 131:110288
TI New organometallic and coordination chemistry routes towards unsupported and silica-supported bismuth-based oxide-type materials
AU Devillers, M.; Lebrun, S.; Tirions, O.; Wullens, H.
CS Laboratoire de Chimie Inorganique et Analytique, Universite Catholique de Louvain, Louvain-la-Neuve, B-1348, Belg.
SO Materials Research Society Symposium Proceedings (1999), 547(Solid-State Chemistry of Inorganic Materials II), 203-208
CODEN: MRSPDH; ISSN: 0272-9172
PB Materials Research Society

2/1/07
PNG
pg

DT Journal
LA English
AB Coordination and organometallic compds. containing Bi, La or Mo were used as precursors for the preparation of unsupported or SiO₂-supported Bi-based oxides. Bi(III) and La(III) polyaminocarboxylates, and more specifically homo- and heteropolymetallic complexes of triethylenetetraaminehexaacetic acid (H6ttha) constitute adequate precursors for the formation of mixed Bi₂-xLa_xO₃ oxides at moderate temps. SiO₂-supported Bi molybdates were obtained from impregnation or combined impregnation-deposition procedures involving Bi β-diketonates, carboxylates or mixed acetate-N-methylimidazole Bi complexes, in association with molybdenyl acetylacetonate or heteroleptic carbonyl-pyridine Mo complexes, either dissolved or dispersed in various organic solvents.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:3470 CAPLUS

DN 130:70560

TI Carbon monoxide sensors with controlled response threshold

IN Goldstein, Mark K.; Oum, Michelle S.; Johnson, Paula I.; Li, Ping; Pucher, Shawn R.

PA Quantum Group, USA

SO Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 884590	A1	19981216	EP 1997-304102	19970612 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11023473	A	19990129	JP 1997-157123	19970613 <--
PRAI	EP 1997-304102	A	19970612		

AB Carbon monoxide sensors having a controlled response threshold comprise a porous semi-transparent substrate that is impregnated with a chemical reagent. The chemical reagent is formulated to regenerate itself for a period of at least a year, and is tailored to provide optimum carbon monoxide response within a predetd. range of relative humidity conditions. In one embodiment of the invention, the chemical reagent is formulated to provide a predetd. carbon monoxide response threshold of .apprx.>15 ppm. In another embodiment, the sensor comprises an optically thin metal oxide film interposed between the substrate surface and the chemical reagent. The metal oxide film is sufficiently thin to provide a predetd. carbon monoxide response threshold of greater than about 15 ppm. Carbon monoxide sensor systems comprise two of the sensors that are both specifically formulated to provide optimum carbon monoxide response under low to high relative humidity conditions, and that are each adapted to provide a carbon monoxide response threshold of .apprx.>15 ppm.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:786132 CAPLUS

DN 130:28240

TI Manufacture of heat-reflecting glass blocks

IN Hashibe, Kichio; Yamaji, Michio; Nishijima, Yoshikazu

PA Nippon Electric Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

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FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10324543	A	19981208	JP 1997-152860	19970526 <--
PRAI	JP 1997-152860		19970526		

AB Metal oxide coating(s) are formed on inner or outer surface(s) of bottom(s) of at least one of a pair of hollow glass blocks having an open end, by application of acetylacetone metal salts, and then the blocks are unified by heat fusion of the open ends of the pairs. The open-end blocks are manufactured by press forming. The blocks reflect heat and are suitable for outer walls for buildings.

L6 ANSWER 18 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:619291 CAPLUS

DN 129:331362

TI Synthesis, Characterization, and Optical Properties of Metal-Containing Fluorinated Polyimide Films

AU Sawada, Takashi; Ando, Shinji

CS NTT Science and Core Technology Laboratory Group, Musashino-shi Tokyo, 180-8585, Japan

SO Chemistry of Materials (1998), 10(11), 3368-3378

CODEN: CMATEX; ISSN: 0897-4756

PB American Chemical Society

DT Journal

LA English

AB Five kinds of metal-containing fluorinated polyimide films were prepared by thermal curing of poly(amic acids) containing metallic salts or organometallic complexes. The chemical states, average sizes, and spatial distribution of the metallic particles were examined, and the thermal and optical properties of the films were compared with those of the colorless host polyimide. For characterizing the metal-containing polyimide films, measurements of refractive indexes and wide-angle X-ray diffraction were newly applied. Copper and palladium complexes were fully or partially oxidized to form metal oxide particles, and silver complexes and gold salts were converted into metal particles after thermal imidization. All the films were much less transparent in the visible region than the host polyimide. However, the metal-containing films, except for the gold-containing film, transmitted higher than 80% at 1550 nm near-IR. The precipitated silver and gold particles increased the average

refractive indexes of the polyimides.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:599440 CAPLUS

DN 129:246629

TI Surface-treating materials, surface treatment therewith and their treated articles

IN Tsujimoto, Soichiro; Tanikawa, Kenichi; Nakasono, Yutaka

PA Osaka Gas Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10237429	A	19980908	JP 1997-346126	19971216 <--
PRAI	JP 1996-344972	A	19961225		
	JP 1996-344973	A	19961225		
	JP 1996-344974	A	19961225		

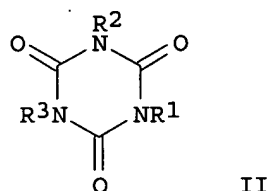
AB Title materials, useful for eating wares, bath room utensils, kitchen sinks, automobile parts, mirrors, glass wares, and air-conditioning fins,

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comprise organic metal compds. and metal oxide particles.
A ceramic tile was primed with 0.1- μ m Atolon NSi 500, coated with a mixture of 1:1 Atolon NSi 500 and Aerosil 300 to a 1- μ m thickness, and baked at 250° for 1 h to form a tile with water contact angle 0°.

L6 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:12722 CAPLUS
DN 126:48450
TI Curable hydrolyzable silyl-terminated polyether sealant compositions for fireproofing of building materials
IN Tono, Masaki; Iuchi, Kenji; Yamauchi, Yasushi
PA Sekisui Chemical Co. Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08269316	A	19961015	JP 1995-70031	19950328 <--
PRAI	JP 1995-70031		19950328		
OS	MARPAT 126:48450				
GI					



AB Title compns., useful as air- and watertight sealants in building construction, comprise 100 parts hydrolyzable silyl-terminated polyethers, 90-300 parts inorg. fillers, 20-200 parts mixts. of ammonium polyphosphates (I), cyclic isocyanurates II [R1-3 = H, C1-16 (di)hydroxyalkyl, C6-14 (di)hydroxyaryl], and metal oxides, and 0.1-10 parts crosslinking catalysts. Thus, Silyl 5A03 (silyl-terminated polyether) 100, NS 3000 (CaCO₃) 100, I (AP 422) 20, tris(2-hydroxyethyl) isocyanurate 10, TiO₂ 2, dioctyl phthalate 20, vinyltrimethoxysilane 2, and dibutyltin bis(acetylacetonate) 2 parts were blended to give title composition showing tack-free time 4 h and retention of viscosity after 1 wk at 50°. A laminate of a wooden particleboard and a cement material was sealed with the composition then exposed to flame at 900° for 30 min showing temperature retention of the sealant backside <150°.

L6 ANSWER 21 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:124001 CAPLUS
DN 124:153752
TI Manufacture of lead-containing ceramic powders
IN Hatake, Kotaro; Okabe, Kazumi; Hamachi, Yukio
PA Murata Manufacturing Co, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07315928	A	19951205	JP 1994-108426	19940523 <--

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PRAI JP 1994-108426 19940523

AB The process for consists of dispersing components of PbMO_3 ($M = \geq 1$ di- to hexavalent metal) powders in solvents, preferably which are water and/or alcs.; mixing the slurry obtained with metal salts, preferably whose oxides are sintering aids; drying the slurry; and calcining the metal salt-loaded powders. The ceramic powders are useful for dielec. and piezoelec. ceramic materials.

L6 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:248420 CAPLUS

DN 122:136248

TI Coating solutions for formation of crack-free metal oxide films

IN Morishima, Hiroyuki; Shimamura, Yasuo; Yamamoto, Yasuhiro; Uchimura, Shunichiro; Sato, Nintei

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06172709	A	19940621	JP 1992-330459	19921210 <--
PRAI	JP 1992-330459		19921210		

OS MARPAT 122:136248

AB Alkoxysilanes or acetoxysilanes, metal alkoxides or chelates, and Li alkoxides or chelates are hydrolyzed and condensed to prepare coating solns. Thus, $\text{Si}(\text{OMe})_4$ 120, diacetylacetone Mg 25, MeOLi 3 g, ethanol, DMF, and maleic acid were heated, mixed with water, coated on a Si wafer, and burnt to form a coating.

L6 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:624425 CAPLUS

DN 117:224425

TI Ruthenium-containing oxide ceramic resistor and its manufacture

IN Hayashi, Chiharu; Okano, Kazuyuki; Ogawa, Tatsuo

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04139802	A	19920513	JP 1990-263998	19901001 <--
PRAI	JP 1990-263998		19901001		

AB Claimed are (1) manufacture of an elec. resistor from an organic solvent solution

containing a Pb- or Bi-containing compound, a Ru-containing compound, a Si-containing compound,

and an alkali metal- or alkaline earth metal-containing compound, which is applied

onto an elec. insulating substrate and fired and (2) the resistor, prepared by the described process, comprising a complex oxide containing Ru and Pb or Bi, a Si oxide, and an alkali metal or alkaline earth metal oxide. The resulting resistor, which may have cubic pyrochlore-type single phase, is useful for high resistance region with improved noise property.

L6 ANSWER 24 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:206641 CAPLUS

DN 116:206641

TI Hexavanadium polyoxoalkoxide anion clusters: structures of the

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mixed-valence species $(\text{Me}_3\text{NH})[\text{VIV}_5\text{VVO}_7(\text{OH})_3\{\text{CH}_3\text{C}(\text{CH}_2\text{O})_3\}_3]$ and of the reduced complex $\text{Na}_2[\text{VIV}_6\text{O}_7\{\text{CH}_3\text{CH}_2\text{C}(\text{CH}_2\text{O})_3\}_4]$

AU Khan, M. Ishaque; Chen, Qin; Zubieta, Jon; Goshorn, David P.

CS Dep. Chem., Syracuse Univ., Syracuse, NY, 13244, USA

SO Inorganic Chemistry (1992), 31(9), 1556-8

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB $(\text{Me}_3\text{NH})[\text{V}_6\text{O}_7(\text{OH})_3\{\text{CH}_3\text{C}(\text{CH}_2\text{O})_3\}_3]$ (1) and $\text{Na}_2[\text{V}_6\text{O}_7\{\text{CH}_2\text{CH}_2\text{C}(\text{CH}_2\text{O})_3\}_4]$ (2) were prepared by the hydrothermal reactions of vanadate salts with the appropriate trisalkoxy ligand. The complexes exhibit the $\{\text{V}_6\text{O}_{19}\}$ core with 9 or 12 doubly-bridging oxo-groups replaced by 9 and 12 doubly-bridging alkoxo groups for 1 and 2, resp. Although an existence of such clusters as 1 and 2 was suggested by the isolation of $[\text{V}_6\text{O}_7(\text{OH})_6\{\text{RC}(\text{CH}_2\text{O})_3\}_2]^{2-}$, these species could not be prepared by conventional synthetic routes using Bu_4N^+ salts of various vanadates. Their ready isolation by hydrothermal synthesis demonstrates the potential of this technique for the preparation of metal oxide coordination complexes. Crystal data: 1, hexagonal, space group $\text{P}6_3\text{mc}$, a 12.792(2), c 10.692(2), Z = 2, R = 0.046; 2, cubic, space group $\text{Fd}3$, a 19.202(2) Å, Z = 8, R = 0.056.

L6 ANSWER 25 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:85861 CAPLUS

DN 116:85861

TI Simple method for metalization of organic polymer moldings

IN Takei, Masatoshi; Nagai, Shoichi; Kobayashi, Yukio; Uenishi, Michiharu

PA Mitsubishi Rayon Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03231935	A	19911015	JP 1990-49428	19900302 <--
PRAI	JP 1989-92678	A1	19890412		
	JP 1989-302359	A1	19891112		
	JP 1989-302360	A1	19891112		

AB The title method involves coating polymer moldings with metal salts, metal alkoxides, or their partial hydrolyzates and heating at $>500^\circ$ to form metals and/or metal oxides. Stirring a mixture of $\text{Si}(\text{OEt})_4$ 178, EtOH 260, H_2O 165, and HCl 2.1 g for 24 h at 25° and adding 100 g acetone gave a solution which was coated on a 2-mm acrylic polymer sheet, dried 30 s at 80° , and passed at 18 m/min over a gas flame at 650° to give a sheet having a coating of Si oxide and showing surface hardness 7H, resistance to cigarette burns 30 s, and transparency 91%, vs. H, 2, and 93, resp. for the uncoated polymer sheet.

L6 ANSWER 26 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:32640 CAPLUS

DN 116:32640

TI Manufacture of metal oxide ion conductors

IN Usami, Akira; Uchikawa, Hidefusa

PA Mitsubishi Electric Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02221106	A	19900904	JP 1989-42482	19890221 <--
PRAI	JP 1989-42482		19890221		

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OS MARPAT 116:32640
AB The conductors are prepared by hydrolysis of metal alkoxides and/or metal β -diketonates in solvents in the presence of alkali metal salts and/or metal halides. The conductors are useful as batteries, sensors, memory devices, etc.

L6 ANSWER 27 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:48309 CAPLUS
DN 114:48309
TI Manufacture of high-strength silicon nitride-based ceramics
IN Nishioka, Takao; Kukidaira, Hiroshi; Matsunuma, Kenji; Takano, Yoshe; Higuchi, Matsuo; Honda, Masaaki; Miyake, Masaya
PA Sumitomo Electric Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02124770	A	19900514	JP 1989-129357	19890522 <--
	EP 399107	A1	19901128	EP 1989-124096	19891228 <--
	EP 399107	B1	19960320		
	R: DE, FR, GB, SE				
	US 5234642	A	19930810	US 1989-459398	19891229 <--
	US 5328876	A	19940712	US 1992-995703	19921223 <--
PRAI	JP 1988-172390	A1	19880711		
	JP 1989-129356	A	19890522		
	JP 1989-129357	A	19890522		
	US 1989-459398	A1	19891229		

AB A powdered Si₃N₄ raw material and a sintering aid (an organic metal salt, metal oxide, nitride, and/or carbide) are dispersed in surfactant-containing solns. by using ultrasonic waves, the prepared suspensions are mixed and dried, and the obtained powder is molded and sintered at 1600-2200° in a nonoxidizing atmospheric, especially N at 10-2000 atmospheric. Preferably, the organic salt is a stearate, acetylacetate, octylate, and/or naphthenate of Y and/or Al, the oxide is Al₂O₃ and Y₂O₃, and the nitride is AlN. The invention ceramics had bending strength >140 kg/mm².

L6 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1990:163860 CAPLUS
DN 112:163860
TI Proton-conductive amorphous materials, and their manufacture
IN Satake, Takeshi; Yoneda, Tadahiro
PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01192742	A	19890802	JP 1988-16833	19880129 <--
PRAI	JP 1988-16833		19880129		

AB The title materials are amorphous metal oxides containing highly dispersed hydrated heteropoly acids and/or their salts. The oxides comprise ≥ 1 oxides of Group III, IV, and V elements, especially of B, Al, Si, Ge, Sn, P, Ti, and Zr. The materials are prepared by mixing a solution of heteropoly acid or its salt with a solution of a metal compound containing hydrolyzable and/or condensable groups, or their derivs., and hydrolyzing and/or condensing the compound. Preferably, the compound is R_mMR_{n1}X_pX_{q1} (M = metal; X = O or SO₄; X₁ = NH₄ or organoamino group; R = H or (substituted) saturated or unsatd. C_{≤10}-aliphatic group; R₁ = halogen, NO₃, OH, acyloxy,

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or alkoxy group; m, p, and q = 0 or pos. integer, n = integer >0, and 2p + m + n - Q equals the valence of M. The materials have high conductivity, may be made into thin films, and are useful as solid electrolytes for electrochem. devices.

L6 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:502126 CAPLUS
DN 111:102126
TI Catalyst support
IN Izumi, Keiji; Deguchi, Takenori; Murakami, Megumi; Tanaka, Hidetoshi
PA Nisshin Steel Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01075040	A	19890320	JP 1987-232038	19870918 <--
	JP 2541828	B2	19961009		
PRAI	JP 1987-232038		19870918		

AB The title catalyst support consists of a metal base coated with Al₂O₃ on ≥1 side of the metal surface, where the metal surface is precoated with a metal oxide film made from 1 or ≥2 metal alkoxide or metal alkylacetate salts. The metal in the alkoxide or alkylacetate is Al, Zr, Ti, Si, Y or Ce. The metal base may be stainless steel, heat-resistant steel or Ni plate. The intermediate metal oxide film improves bonding between the base metal and the Al₂O₃ layer. Thus, a stainless steel foil (50 μm thick) was dipped in an alc. solution of acetylacetate Zr, heated 200° for 10 min to form 0.05 μm thick ZrO₂ film, then coated with γ-Al₂O₃. Adherence of the γ-Al₂O₃ layer was better than a control without ZrO₂ film. Heat resistance of the support also was improved.

L6 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:501883 CAPLUS
DN 111:101883
TI Sol-gel process for the incorporation of transition metals within ceramic oxide matrixes, and the preparation of gamma-alumina and lithium aluminum silicate-like ceramics incorporating desired metal oxides
IN Covino, Josephine
PA United States Dept. of the Navy, USA
SO Statutory Invent. Regist., 7 pp.
CODEN: SRXXEV

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 626	H	19890404	US 1986-892967	19860804 <--
PRAI	US 1986-892967		19860804		

AB The title process comprises (a) forming a solution of hydrolyzable transition metal organic compds. in an organic solvent, (b) lowering the pH of the solution with an acid to a level that allows growth of metal oxide chains and networks through hydrolysis and condensation reactions without the formation of colloidal SiO₂, (c) initiating a hydrolytic polycondensation reaction by adding water to produce a gel containing 3-dimensionally crosslinked polymer having a controlled, crosslinked matrix, and (d) heating the gel to substantially remove organic and free liquid components, and to convert the gel to a particulate oxide product. γ-Al₂O₃ is prepared by adding concentrated HCl to a solution of Al(OPr)₃ in distilled water to lower the pH to .apprx.0.7, diluting the solution

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with MeOH, sonicating the solution for .apprx.10 min, and dehydrating the solution to obtain crystalline ceramic oxide powder. Li aluminosilicate-like products are prepared by hydrolyzing a solution of hydrolyzable compds. of the metals in an organic solvent, with selection of the pH of the solution so that hydrolysis and polymerization proceeds without the formation of colloidal oxides,

which detach from the chains and networks, but are desired to remain therein to form the product. This method is suitable for controlling particle size distribution and crystal structure, so as to produce tailored oxides with specific particle morphol., for near-zero expansion-type optical ceramics, and for oxide glass-ceramics with ultralow expansivity, low He permeability and thermal stability over a wide temperature range, for application in ultraprecision measurement equipment.

This method was applied to prepare a Li aluminosilicate material containing Si 28.49, Al 14.7, Li 1.89, Zn 1.24, Mg 0.66, Ti 1.52, and Zr 1.55%, and the balance O, with .apprx.72% of the particles >50 μ m.

L6 ANSWER 31 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:204182 CAPLUS
DN 110:204182
TI Composition and process for preparing compound metal oxides
IN Tsunashima, Makoto; Uchida, Hiroto; Sakai, Kazuhiro; Miyauchi, Masato
PA Mitsubishi Metal Corp., Japan
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 301591	A2	19890201	EP 1988-112380	19880729 <--
	EP 301591	A3	19900516		
	EP 301591	B1	19920930		
	R: BE, DE, FR, GB, IT, NL, SE				
	JP 01037420	A	19890208	JP 1987-190203	19870731 <--
	JP 01037422	A	19890208	JP 1987-190205	19870731 <--
	JP 01062474	A	19890308	JP 1987-216514	19870901 <--
	JP 01192724	A	19890802	JP 1988-17305	19880129 <--
	US 5024991	A	19910618	US 1988-226999	19880801 <--
PRAI	JP 1987-190203	A	19870731		
	JP 1987-190205	A	19870731		
	JP 1987-216514	A	19870901		
	JP 1988-17305	A	19880129		

OS MARPAT 110:204182

AB A composition for forming a compound metal oxide of a specific composition and a process for preparing the compound oxide are described.

The composition comprises an alkoxide of a rare earth metal, an alkoxide of an alkaline earth metal and an organic acid salt of an organic complex of Cu. The process comprises refluxing the composition for reaction and thermally decomposing

the reaction product. Also a film-forming composition for forming a thin layer of a compound metal oxide is described. The film-forming compound comprises the above-mentioned composition plus a film-forming resin and an organic solvent. Critical temps. for the superconductor products were as high as 110 K.

L6 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:194785 CAPLUS
DN 110:194785
TI Metal oxide coating solutions
IN Tanitsu, Katsuya; Nakayama, Muneo; Sato, Yoshimi
PA Tokyo Ohka Kogyo Co., Ltd., Japan

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PNC
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SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63258959	A	19881026	JP 1987-556	19870107 <--
	JP 2729373	B2	19980318		
	US 4908065	A	19900313	US 1988-141075	19880105 <--
	US 4960618	A	19901002	US 1990-461873	19900108 <--
PRAI	JP 1987-556	A	19870107		
	US 1988-141075	A3	19880105		

AB Solns. for coating metal oxides on substrates, such as glass, ceramics, metals, plastics, contain β -diketones, aprotic polar solvents, and ≥ 1 substance selected from β -diketone complex-forming elements, their salts, and their alkoxide hydrolyzates. Coating solns. containing β -diketone metal complexes and aprotic polar solvents are also used. Thus, a 1.1-mm glass plate was immersed in a coating solution comprising ethyl acetoacetatoaluminum diisopropylate 15, acetylacetone 3, and N-methyl-2-pyrrolidone 25 parts, removed from the solution at 10 cm/min, dried with air at 140° for 15 min, then baked at 500° for 60 min to give a 80-nm Al₂O₃ coating without pinholes.

L6 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:194725 CAPLUS

DN 110:194725

TI Metal oxide-coated organic pigments for coatings with improved rheology

IN Bugnon, Philippe; Grubenmann, Arnold; Medinger, Bernhard; Schaeffle, Jean

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 296111	A2	19881221	EP 1988-810386	19880610 <--
	EP 296111	A3	19910403		
	EP 296111	B1	19931124		
	R: CH, DE, FR, GB, IT, LI				
	US 4880472	A	19891114	US 1988-202865	19880606 <--
	JP 01016871	A	19890120	JP 1988-147046	19880616 <--
	JP 2515377	B2	19960710		
PRAI	CH 1987-2256	A	19870616		

OS MARPAT 110:194725

AB The title pigments, bearing tightly bonded, penetrating coatings of SiO₂ or Al₂O₃ crosslinked via free OH groups by hydrolyzed chelates of 1,3-dicarbonyl compds. with Ti, Sn, or Zr or Group IVA or IVB metal alkoxides, have good gloss and are useful in printing inks, coatings, and polymers. C.I. Pigment Yellow 110 (20 g) was in 20 mL iso-PrOH was combined over 30 min with 3.55 g Ti(OPr-iso)₄ in 50 mL iso-PrOH, and, after 1 h, with 10 mL 2% NaOPr-iso solution, stirred for 3 h at 70°, mixed with 300 mL H₂O, heated to 78°, mixed over 1 h with 1N NaOH (to give pH 9.5), 3.8 g Na silicate (26.5% SiO₂) in 100 mL H₂O and then with 20 mL 0.2M H₂SO₄ and 100 mL H₂O, and stirred for 2 h. Mixing 9% this pigment with a 40.5% dispersion of Setal 84 gave a coating composition with viscosity 885 and 193 mPa-s at shear rate 10 and 100/s, resp., vs. 1320 and 297, resp., with uncoated pigment.

L6 ANSWER 34 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:146318 CAPLUS

DN 110:146318

2/1/07
PNG
p18

TI Single-layer or multilayer ceramic coatings from silicate esters and metal oxides
IN Haluska, Loren A.; Michael, Keith W.; Tarhay, Leo
PA Dow Corning Corp., USA
SO U.S., 14 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4753856	A	19880628	US 1987-217	19870102 <--
	CA 1329739	C	19940524	CA 1987-554210	19871214 <--
	JP 63178532	A	19880722	JP 1987-330346	19871228 <--
	JP 06042479	B	19940601		
	EP 274274	A2	19880713	EP 1987-311481	19871229 <--
	EP 274274	A3	19881207		
	EP 274274	B1	19940323		
	R: DE, FR, GB, IT, NL				
	CN 87107417	A	19880817	CN 1987-107417	19871229 <--
	CN 1012494	B	19910501		
	ES 2005496	A6	19890301	ES 1987-3757	19871230 <--
	US 4997482	A	19910305	US 1989-411753	19890925 <--
PRAI	US 1987-217	A	19870102		
	US 1988-167228	B1	19880311		

OS MARPAT 110:146318

AB Methods for preparing the title coatings are described in which a preceramic mixture comprising a partially or completely hydrolyzed silicate ester and a metal oxide precursor selected from Al alkoxides, Ti alkoxides, and/or Zr alkoxides in a solvent is applied to a substrate and ceramified by heating at 200-1000°. Addnl. ceramic coatings containing Si-C, Si-N, or Si-C-N can be applied over the ceramified SiO₂/metal oxide coating (e.g., using chemical vapor deposition or plasma-enhanced chemical vapor deposition). Methods of forming a Si-N-containing coating, entailing coating a substrate with a solution containing a preceramic polymer produced by combining a cyclic silazane or a mixture of cyclic silazanes with a halodisilane or halosilane, are described. Application as planarizing coatings for electronic devices is indicated.

L6 ANSWER 35 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:86990 CAPLUS

DN 110:86990

TI Preparation of multilayer ceramic coatings containing metal oxides for protection of electronic devices

IN Haluska, Loren Andrew; Michael, Keith Winton; Tarhay, Leo

PA Dow Corning Corp., USA

SO Eur. Pat. Appl., 44 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 270263	A2	19880608	EP 1987-309966	19871111 <--
	EP 270263	A3	19891213		
	EP 270263	B1	19940413		
	R: DE, FR, GB, IT, NL				
	US 4753855	A	19880628	US 1986-938677	19861204 <--
	CA 1329736	C	19940524	CA 1987-549574	19871019 <--
	ES 2010233	A6	19891101	ES 1987-3427	19871130 <--
	JP 63152131	A	19880624	JP 1987-304654	19871203 <--
	JP 06046631	B	19940615		
	US 4808653	A	19890228	US 1988-166587	19880310 <--

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PNC
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PRAI US 1986-938677 A 19861204

AB The title preps. entail the use of preceramic material solns., prepared by diluting a mixture of a H silsesquioxane resin and a metal oxide precursor selected from Al alkoxides, Ti alkoxides, and Zr alkoxides in a solvent, which are applied to a substrate and ceramified by heating to 200-1000° to produce a SiO₂/metal-oxide coating. Addnl. coatings, comprising Si-C, Si-N, or Si-C-N, may be applied over the resulting coating, and coatings produced by chemical vapor deposition or plasma-enhanced chemical vapor deposition may also be applied. Application in the formation of planarizing, passivating, and protective coatings for electronic devices is indicated.

L6 ANSWER 36 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:438722 CAPLUS

DN 109:38722

TI Characterization of microcomposite polyimide films

AU Rancourt, J. D.; Porta, G. M.; Taylor, L. T.

CS Dep. Chem., Virginia Polytech. Inst. and State Univ., Blacksburg, VA, 24061-0212, USA

SO International SAMPE Symposium and Exhibition (1988),

33(Mater.--Pathway Future), 1121-33

CODEN: ISSEEG; ISSN: 0891-0138

DT Journal

LA English

AB Films containing a soluble metal salt or a metal complex and a polyamic acid prepared from 3,3',4,4'-benzophenonetetracarboxylic dianhydride or 4,4'-bis(3,4-dicarboxyphenoxy)diphenyl sulfide dianhydride and 4,4'-oxydianiline were cast from N,N-dimethylacetamide and cured at high temps. to form surface-conductive polyimide films. Elec. conductivity was due to

a nearly continuous layer of metal oxide or metal just beneath the surface of the films. The bulk of the polyimide film contained residual metal salts or complexes, but at a concentration below the percolation threshold for conduction.

L6 ANSWER 37 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:35522 CAPLUS

DN 106:35522

TI Spray-dried inorganic oxides with high surface area and pore volume from nonaqueous gels or solutions

IN Marsh, Gary Barton; Fanelli, Anthony Joseph; Armor, John Nelson; Zambri, Patrick Michael

PA Allied Corp., USA

SO Eur. Pat. Appl., 47 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 199930	A2	19861105	EP 1986-102830	19860304 <--
	EP 199930	A3	19881026		
	EP 199930	B1	19911121		
	R: DE, FR, GB, IT				
	US 4649037	A	19870310	US 1985-717931	19850329 <--
	CA 1237870	A1	19880614	CA 1986-503206	19860304 <--
	AU 8654941	A	19861002	AU 1986-54941	19860320 <--
	JP 61232204	A	19861016	JP 1986-72372	19860329 <--
	US 4713233	A	19871215	US 1986-910929	19860924 <--

PRAI US 1985-717931 A 19850329

AB Metal oxide powders of high surface area (SA) and pore volume (PV) (xerogel powders) are prepared by spray-drying a mixture of ≥1 hydrolyzable metal compound, e.g., a metal alkoxide, with an organic solvent and enough water to give at least partial hydrolysis. The

resulting powders have properties similar to those of aerogels. MgO powder was prepared from Mg(OEt)₂ in MeOH and distilled water by stirring to give a suspension, which was spray-dried to give MgO of SA 8.9 m²/g, PV 0.34 cm³/g, particle size 50% ≤ 0.78 μ spherical diameter, and d. 2.1 g/cm³.

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L6 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1986:536905 CAPLUS
DN 105:136905
TI Synthesis gas conversion using ruthenium-promoted cobalt catalyst prepared by nonaqueous impregnation.
IN Beuther, Harold; Kobylinski, Thaddeus P.; Kibby, Charles L.; Pannell, Richard B.
PA USA
SO U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 310,969, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4585798	A	19860429	US 1984-635911	19840730 <--
	US 4413064	A	19831101	US 1981-310977	19811013 <--
	US 4493905	A	19850115	US 1983-540662	19831011 <--
	US 4613624	A	19860923	US 1985-755657	19850426 <--
	US 4605679	A	19860812	US 1985-734188	19850515 <--
	US 4605676	A	19860812	US 1985-734189	19850515 <--
	AU 8543791	A	19860206	AU 1985-43791	19850618 <--
	AU 581896	B2	19890309		
	ZA 8505316	A	19860326	ZA 1985-5316	19850715 <--
	US 4729981	A	19880308	US 1986-869705	19860602 <--
	US 4670414	A	19870602	US 1986-876730	19860620 <--
	US 4717702	A	19880105	US 1986-876458	19860620 <--
	EP 253924	A1	19880127	EP 1986-201283	19860721 <--
	R: AT, BE, DE, FR, GB, IT, NL, SE				
	AU 591151	B2	19891130	AU 1986-60394	19860721 <--
	AU 8660394	A	19880128		
	ZA 8605460	A	19870225	ZA 1986-5460	19860722 <--
	BR 8603497	A	19880315	BR 1986-3497	19860724 <--
PRAI	US 1981-310969	A2	19811013		
	US 1981-310977	A3	19811013		
	US 1983-540662	A2	19831011		
	US 1984-635911	A2	19840730		
	US 1985-755657	A3	19850426		
	US 1985-734188	A3	19850515		
	US 1985-734189	A3	19850515		

OS CASREACT 105:136905

AB Liquid hydrocarbons are prepared from synthesis gas using an Al₂O₃-supported catalyst containing 5-30 weight % Co with a Co-Ru mol ratio 200-3400:1, prepared by

impregnation of the Al₂O₃ with a nonaq. organic solution of the precursor salts. The impregnated catalysts, which can also contain 0.1-5 weight % of a promoter metal oxide (chosen from Ca₂O₃, ThO₂, MgO, and rare earth oxides), are activated by a sequential procedure consisting of reduction in H, oxidation, and a 2nd H reduction A catalyst containing

20.00:1.00:0.05 (weight % ratio) Co-La₂O₃-Ru/Al₂O₃, prepared from Co(NO₃)₂, La(NO₃)₅, and Ru acetylacetonate in acetone, was activated by the 3-step process and tested in H-CO at 1 atm, resulting in a CO conversion of 145 cm³/g-h, compared with 159 cm³/g-h for a catalyst containing 0.10 weight % Ru.

L6 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1986:471376 CAPLUS
DN 105:71376

TI Microcrystalline metal oxides
IN David, Lawrence D.
PA Celanese Corp. , USA
SO U.S., 8 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4588575	A	19860513	US 1984-667303	19841101 <--
	US 4588576	A	19860513	US 1985-765691	19850815 <--
PRAI	US 1984-667303	A3	19841101		

OS MARPAT 105:71376

AB A process is claimed for the production of a microcryst. metal oxide powder which comprises (1) forming a homogeneous solvent solution containing a solute of ≥ 1 metal-organic compds. (e.g., metal β -diketonates, metal carboxylate salts, metal alkoxides, or α -hydroxycarboxylate metal salts such as metal citrates, metal tartrates, metal malates, metal lactates, or metal glycolates); (2) subjecting the solution to ultrasonic wave energy (e.g., at 40-2000 kHz) while treating it to cause formation of a gelled solution; (3) removing solvent medium from the gelled solution to provide a residual mass of precursor solids; and (4) pyrolyzing (e.g., at 300-900°) the precursor solids in the presence of O₂ to form a metal oxide composition having an average particle size ≤ 1000 Å. Thus, a metastable tetragonal ZrO₂ powder (average particle diameter 950-1000 Å, crystallite size .apprx.80-140 Å) containing Y 3.5 mol% as a stabilizing agent was prepared from Zr acetylacetonate (acac) and Y acac. Mg acac, Ca acac, Sr acac, Yb acac, Dy acac, and Ce acac produced similar results when used as stabilizing agents in forming metastable ZrO₂ powders. Application of the process to the preparation of ferrimagnetic spinels having the general formula MFe₂O₄, where M can be ≥ 1 of Mn, Fe, Co, Ni, Cu, Zn, Cd, Mg, Ba, and/or Sr are also claimed, and preps. of Ni_{0.7}Zn_{0.3}Fe₂O₄ powders from Fe acac with Ni acac and Zn acac, as well as from Fe citrate with Ni citrate and Zn citrate are described. The powders are useful in the manufacture of coating compns., fine-grained ceramics, cermets etc.

L6 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1976:125964 CAPLUS

DN 84:125964

TI Finely divided metal oxides and their use in preparing sintered moldings

IN Hamling, Bernard H.; Namann, Alfred W.

PA Union Carbide Corp., USA

SO Ger. Offen., 61 pp. Addn to Ger. Offen. 2,123,045.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2527148	A1	19760108	DE 1975-2527148	19750618 <--
	DE 2527148	B2	19770602		
	BE 830376	A4	19751218	BE 1975-157450	19750618 <--
	SE 7507012	A	19751222	SE 1975-7012	19750618 <--
	NL 7507276	A	19751223	NL 1975-7276	19750618 <--
	FR 2275422	A2	19760116	FR 1975-19141	19750618 <--
	FR 2275422	B2	19790119		
	JP 51016299	A	19760209	JP 1975-73276	19750618 <--
	AU 7582207	A	19761223	AU 1975-82207	19750618 <--
	AU 501910	B2	19790705		
	IL 47514	A	19790131	IL 1975-47514	19750618 <--
	CH 609021	A5	19790215	CH 1975-7946	19750618 <--

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PRAI US 1974-481321 A 19740620
IL 1971-36818 A0 19710540

AB Finely divided metal oxides are manufactured by treating a carbohydrate with ≥ 1 metal compound, calcining the mixture to produce an ash consisting of a friable agglomerate of submicron metal oxide particles, and grinding the agglomerate to particles of size $< 1 \mu$. Thus, wood pulp sheets were saturated with a $ZrOCl_2 \cdot YCl_3$ solution containing

ZrO2 250, Y2O3-rare earth oxide mixture 20, and Cl- 160 g/l., freed of excess solution, and burned 1 min at $\approx 982^\circ$ in a gas oven. The ash consisted of loosely agglomerated crystallites of stabilized ZrO2 having particle size 200-500 Å, and was powdered and then ball milled to give the desired particles. Pelletizing and sintering at 1465° gave articles with d. 5.9-6 g/cm³ compared to 3.9 and 5.3 for 2 com. products.

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(FILE 'HOME' ENTERED AT 15:50:58 ON 01 FEB 2007)

FILE 'REGISTRY' ENTERED AT 15:51:34 ON 01 FEB 2007

L1 STRUCTURE UPLOADED
L2 50 S L1
L3 31098 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:52:14 ON 01 FEB 2007

L4 29636 S L3 AND PY<=2002
L5 2325 S L4 AND SALTS
L6 40 S L5 AND METAL OXIDE

=> s l4 and metal complexes of beta-diketone#

1710547 METAL
734751 COMPLEXES
1432549 BETA
21335 DIKETONE#
34 METAL COMPLEXES OF BETA-DIKETONE#
(METAL(W) COMPLEXES (1W) BETA(W) DIKETONE#)
L7 15 L4 AND METAL COMPLEXES OF BETA-DIKETONE#

=> d 1-15 bib abs

L7 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1987:440612 CAPLUS
DN 107:40612
TI Method for neutralization of organophilic acidic compounds
IN Brown, Sterling Bruce; Yates, John Bennie III
PA General Electric Co., USA
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8700520	A1	19870129	WO 1986-US1388	19860702 <--
	W: JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	EP 226635	A1	19870701	EP 1986-904599	19860702 <--
	EP 226635	B1	19890906		
	R: DE, FR, GB, IT, NL				
	JP 63500450	T	19880218	JP 1986-503730	19860702 <--
PRAI	US 1985-759198	A	19850726		
	WO 1986-US1388	W	19860702		

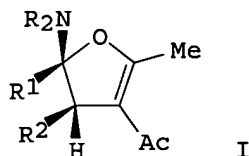
AB Salts of organophilic acidic compds., e.g., ionomers, are prepared by

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neutralization in the melt or in a nonpolar organic liquid with a metal salt of a β -diketone, e.g., 2,4-pentanedione. Refluxing 100 g 0.5% maleic anhydride-grafted polyethylene in 2250 mL PhMe with 1.5 g Zn 2,4-pentanedionate hydrate in 100 mL PhMe gave a Zn salt of the polymer as an opaque white precipitate

L7 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1984:519881 CAPLUS
DN 101:119881
TI LAMMA mass spectra of β -diketone, bis(benzoylacetone)ethylenediimine and bis(salicylidene)ethylenediimine complexes of some transition metals
AU Rohly, Kenneth E.; Heffren, John S.; Douglas, Bodie E.
CS Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA
SO Organic Mass Spectrometry (1984), 19(8), 398-402
CODEN: ORMSBG; ISSN: 0030-493X
DT Journal
LA English
AB Complexes of 2,4-pentanedione (Hacac), [Cu(acac)₂], [VO(acac)₂] and [Co(acac)₃], and the Cr(III) derivative of 3-methyl-2,4-pentanedione (Hmeac), [Cr(meac)₃], the ligands bis(benzoylacetone)ethylenediimine and bis(salicylidene)ethylenediimine, and their Co(II), Ni(II) and Cu(II) chelates were analyzed by laser desorption mass spectrometry (LAMMA) and compared to electron impact results. The pos. ion LAMMA spectra generally reveal mostly small fragments, although metal cationization peaks are seen for most complexes. Neg. ion LAMMA produce C clusters and some structurally important fragments.

L7 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1984:67596 CAPLUS
DN 100:67596
TI The photoreaction of amines or enamines with metal complexes of .beta.-diketones
AU Sato, Tadashi; Watanabe, Kazuhiro
CS Dep. Appl. Chem., Waseda Univ., Tokyo, 160, Japan
SO Chemistry Letters (1983), (10), 1499-502
CODEN: CMLTAG; ISSN: 0366-7022
DT Journal
LA English
OS CASREACT 100:67596
GI



AB Irradiation of amines R₂NCHR₁CH₂R₂ (R = Pr, Bu; R₁ = H; R₂ = Me, Et) with Co(acac)₃ or other metal β -diketonates gave trans-I. Similarly, photoreaction of enamines R₂NCR₁:CHR₂ [R = Pr, Et, Bu; R₂ = (CH₂)₅; R₁ = H; R₂ = Pr, Et, Me; R₁R₂ = (CH₂)₄] with Co(acac)₃ gave I. The mechanisms of these reactions involve electron transfer.

L7 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1983:186215 CAPLUS
DN 98:186215
TI Size-exclusion chromatographic behavior of metal complexes of .beta.-diketones
AU Saito, Masanori; Kuroda, Rokuro; Shibukawa, Masami
CS Fac. Eng., Univ. Chiba, Yayoi, 260, Japan

2/1/07
PN6
p24

SO Analytical Chemistry (1983), 55(7), 1025-9
CODEN: ANCHAM; ISSN: 0003-2700

DT Journal

LA English

AB The size-exclusion chromatog. behavior of 6 β -diketones and their Be(II) and Cr(III) complexes in poly(vinyl acetate) gel-organic solvent systems was studied on the basis of the A. G. Ogston (1958) and T. C. Laurent (1964) models. The relation between the distribution coefficient and the molar volume depends strongly on the type of substituent in the β -diketone and in the eluent and cannot be explained merely by the size exclusion mechanism for all the systems studied. However, the linear relations between $(-\ln K_{av})^{1/2}$ and $V_m^{1/3}$ in the Fractogel PVA 2000-p-dioxane system allow the effective size of a given metal chelate dissolved in p-dioxane to be estimated from K_{av} values of related free ligand and metal chelates.

L7 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1982:414457 CAPLUS

DN 97:14457

TI Desorption ionization mass spectrometry: secondary ion and laser desorption mass spectra of transition-metal complexes of β -diketones

AU Pierce, Janelle L.; Busch, Kenneth L.; Cooks, R. Graham; Walton, Richard A.

CS Dep. Chem., Purdue Univ., West Lafayette, IN, 47907, USA

SO Inorganic Chemistry (1982), 21(7), 2597-602

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB Studies on the secondary ion mass spectra (SIMS) of β -diketonate complexes of the transition metals were carried out with NH_4Cl and NaCl as room-temperature matrices. Those systems studied included the acetylacetonate(acac) derivs. $\text{M}(\text{acac})_3$ ($\text{M} = \text{Fe}, \text{Cr}, \text{Mn}, \text{or Co}$), $\text{M}(\text{acac})_2$ ($\text{M} = \text{Ni or Cu}$), $\text{VO}(\text{acac})_2$, and $\text{MoO}_2(\text{acac})_2$ as well as $\text{Cr}(\text{tfac})_3$ and $\text{Cr}(\text{btac})_3$, which contain the unsym. $\text{CF}_3\text{COCHCOCH}_3$ - (tfac) and PhCOCHCOCF_3 - (btac) ligands. Of particular interest has been the production of bimetallic ions, including cationization, in a formal sense, of $\text{M}(\text{acac})_3$ to produce the structurally informative secondary ions $[\text{C} + \text{M}(\text{acac})_3]^+$ (C represents the 'cationizing agent'). In addition to cationization by Na (from the NaCl matrix) and Ag (from the Ag support), self-cationization and cationization by another 1st-row transition metal were also observed. Mixts. of tris(acetylacetonates) give $[\text{C} + \text{M}(\text{acac})_3]^+$ ions in low abundances in all cases except $\text{Cr}(\text{acac})_3 + \text{Mn}(\text{acac})_3$. In addition, both mixts. of different β -diketonate complexes and mixts. containing a β -diketonate complex with a metal chloride give rise to metal-ligand exchange during the course of the SIMS experiment. The implications of these latter findings for the use of SIMS in characterizing metal complexes of importance in heterogeneous catalysis are discussed. Laser desorption, like SIMS, was observed to give rise to bimetallic ions, including silver ion cationization of the neutral β -diketonate complex. Some of these species were characterized by mass spectrometry/mass spectrometry through collision-induced dissociation at 7 keV. Consideration is given to the relationship between the mechanisms of SIMS and laser desorption mass spectrometry as applied to the characterization of coordination complexes.

L7 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1974:417394 CAPLUS

DN 81:17394

TI Synergism in solvent extraction of tetravalent metal ions. Formation of synergistic adducts

AU Bok, L. D. C.; Wessels, G. F. S.; Leipoldt, J. G.

CS Dep. Chem., Univ. Orange Free State, Bloemfontein, S. Afr.

SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1974), 404(1), 76-80

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CODEN: ZAACAB; ISSN: 0044-2313

DT Journal
LA English
AB The β -diketone complexes ML₄ (M = Zr, Hf, Th, U; HL = acetylacetone, dibenzoylmethane, thenoyltrifluoroacetone, hexafluoroacetylacetone) were used to prepare 1:1 adducts with (C₈H₁₇)₃PO, Ph₃PO, (PhO)₃PO, and (BuO)₃PO. No adducts were obtained for ML₄ (M = Zr, Hf, U), whereas ThL₄ formed 1:1 adducts only for strongly acid HL, i.e. the above latter three β -diketones. The adduct formation is influenced by the acid strength of the β -diketone, the basicity of the P compound, the ionic radii and the electron configuration of the metal.

L7 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1973:42368 CAPLUS

DN 78:42368

TI Hydrogen rearrangements in the mass spectra of some metal complexes of .beta.-diketones

AU Lacey, M. J.; Macdonald, C. G.; Shannon, J. S.

CS Sch. Chem., Univ. New South Wales, Kensington, Australia

SO Australian Journal of Chemistry (1972), 25(12), 2559-65

CODEN: AJCHAS; ISSN: 0004-9425

DT Journal

LA English

AB H rearrangements in the mass spectra of copper (II), nickel (II), and oxovanadium (IV) complexes of pentane-2,4-dione, 3-methylpentane-2,4-dione, and 1,3-diphenylpropane-1,3-dione were studied by D labeling. The results were interpreted in terms of stepwise reactions which may be preceded by competitive H-exchange processes.

L7 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1969:81534 CAPLUS

DN 70:81534

TI Proton magnetic resonance studies of some metal complexes of .beta.-diketones and organophosphorus compounds in carbon tetrachloride

AU Wang, Sung Mao; Li, Norman C.

CS Duquesne Univ., Pittsburgh, PA, USA

SO Journal of Inorganic and Nuclear Chemistry (1969), 31(3), 755-63

CODEN: JINCAO; ISSN: 0022-1902

DT Journal

LA English

AB Proton magnetic resonance evidence in CCl₄ medium is given for the formation of the keto hydrates of hexafluoroacetylacetone (I), thenoyltrifluoroacetone (II), benzoyl-trifluoroacetone (III), and trifluoroacetylacetone (IV). The keto hydrates of I and II were isolated in the crystalline state and analyzed, whereas the keto hydrates of III and IV have not been isolated and are more difficult to obtain. No keto hydrate of acetylacetone in CCl₄ is formed. The strength of electron-release increases in the order: trifluoromethyl group in I, thenoyl group in II, Ph group in III, and Me group in IV, and this order is paralleled by the decrease in the ability to form keto hydrates. Since no ternary Zn complex with the phosphine oxide exists in the acetylacetone system, no synergism or destruction of synergism can occur, and this is in agreement with data obtained from solvent extraction studies using ⁶⁵Zn.

L7 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1968:480997 CAPLUS

DN 69:80997

TI Determination of the stability of some europium β -diketonates in aqueous solutions

AU Berlyand, A. S.; Byrke, A. I.; Martynenko, L. I.

CS Mosk. Gos. Univ., Moscow, USSR

SO Zhurnal Neorganicheskoi Khimii (1968), 13(8), 2106-10

CODEN: ZNOKAQ; ISSN: 0044-457X

2/1/67
p26
p26

DT Journal
LA Russian
AB Distribution of Eu β -diketonates between H₂O and either C₆H₆ or CHCl₃ was investigated at 25° as a function of concns. and pH. Detailed procedure and calcns. are described for the dibenzoylmethane. No polymerization or hydrolysis were detected when the Eu concentration was 5×10^{-5} to 2×10^{-4} M (in the aqueous phase). The overall formation consts. (β), in the aqueous phase, were: dibenzoylmethane 5.0×10^{19} ; selenoylacetone, 7.58×10^{17} ; selenenoylbzoylmethane, 1.19×10^{16} , and benzoylacetone 4.20×10^{19} . β 1's and β 2's were also given. A correlation has been observed between the stability consts. of the β -diketonates of several rare earth ions and the observed C-O frequencies in their ir spectra.

L7 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1966:452437 CAPLUS

DN 65:52437

OREF 65:9810c-f

TI Rate of chelate extraction

AU Zolotov, Yu. A.

SO Khim. Osnovy Ekstraktsion. Metoda Razdeleniya Elementov, Akad. Nauk SSSR, Inst. Geokhim. i Analit. Khim. (1966) 44-59

DT Journal

LA Russian

AB cf. CA 63, 3677a. The rate of chelate extraction was studied as a function of the metal ion, chelating agent (HA), metal and HA concns., pH, and extracting solvent. The metal was present initially in the aqueous phase, and HA initially in the organic phase. The slow step of extraction was the formation

of the chelate. The systems studied were (metal, HA, pH, and solvents given, resp.): Fe³⁺, Ac₂CH₂, 1.3-1.4, CHCl₃, CCl₄; UO₂⁺⁺, Ac₂CH₂, 6.3-7.1, CHCl₃, CCl₄, C₆H₆; UO₂⁺⁺, BzAcCH₂, 5.8, CHCl₃, C₆H₆; Fe³⁺, Bz₂CH₂, 3.7-5.6, CHCl₃, CCl₄, C₆H₆; Sc, Bz₂CH₂, 4.1-6.0, CHCl₃, CCl₄; UO₂⁺⁺, Bz₂CH₂ 5.5, CHCl₃, C₆H₆; Zn, thenoyltrifluoroacetone, 8, CCl₄, C₆H₆; Co⁺⁺, benzoylphenylhydroxylamine (I), 7.1-9.2, CHCl₃, C₆H₆; Fe³⁺, I, 1.7-4.2, CHCl₃, CCl₄, C₆H₆; In, I, 3.3-6.0, CHCl₃, C₆H₆; Zn, I, 8.0, CHCl₃, C₆H₆; UO₂⁺⁺, 1-(2-pyridylazo)-2-naphthol, 7.0, CHCl₃, CCl₄. The metal concns. were 10^{-6} - 10^{-4} M, while the HA concns. were usually 0.01-0.10 M. The extraction rate depends on the metal, is generally slow for Bz₂CH₂ extraction, increases with increasing pH and HA concentration, and is greater for C₆H₆ and CCl₄ than for CHCl₃. The distribution coefficient of HA decreases in the order CHCl₃ gt; C₆H₆ > CCl₄, so that extraction is faster by solvents in which HA is less soluble

The extraction rate curves for some Zn, Co, and UO₂⁺⁺ systems have maximum which

are probably due to the formation, then decomposition, of coordinately unsatd. complexes. The maximum are more characteristic for CCl₄ than for CHCl₃, which correlates with the capacity of CCl₄ and CHCl₃ to extract coordinately unsatd. complexes.

L7 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1966:19950 CAPLUS

DN 64:19950

OREF 64:3715b-c

TI Catalysts for polymerization of formaldehyde

PA Chemische Werke Huels A.-G.

SO 4 pp.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1399196		19650514	FR 1964-978841	19640619 <--

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p27

PRAI DE 19630710

AB Polyformaldehyde is prepared by using metal carbonyl chelate as catalysts in organic solvents. For example, 0.2 g. of the chelate of acetylacetone with Al was dissolved in 4 l. of C₆H₆ with stirring. Then, 200 g. HCHO was distilled into the solution during 1 hr. Polymerization occurred instantaneously with evolution of heat. The reaction mixture was kept at 18° under N. After 30 min., the precipitate was filtered, washed with 2 l. C₆H₆, dried in air, and finally dried in vacuo. Thus, 195 g. of a snow-white polymer was obtained with a reduced viscosity of 1.25. A pressed sheet was flexible and elastic. Fe³⁺, Fe²⁺, Ce³⁺, Cu²⁺, Ni²⁺, Mg²⁺, Zn²⁺, and Zr⁴⁺ acetyl acetonates, Cu benzoylacetate, and cupric Et acetoacetate were also used.

L7 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1965:78310 CAPLUS

DN 62:78310

OREF 62:13875b-e

TI Vapor pressure-temperature data for various metal-β-diketone chelates

AU Berg, E. W.; Truemper, Joseph T.

CS Louisiana State Univ., Baton Rouge

SO Analytica Chimica Acta (1965), 32(3), 245-52

CODEN: ACACAM; ISSN: 0003-2670

DT Journal

LA English

AB cf. Berg, et al., CA 54, 16968e; 56, 9437f. The colors, m.ps., vapor pressure-temperature data, molar heats of sublimation, and sublimation temps. are given of 39 metal-β-diketone chelates (I) of Be²⁺, Al³⁺, Mn²⁺, Fe³⁺, Co²⁺, Ni²⁺, and Cu²⁺ formed with acetylacetone (AA), acetyltrifluoroacetone (ATA), Ac-(Bz)CH₂ (BA), benzoyltrifluoroacetone (BTA), 2-furoyltrifluoroacetone (FTA), or 2-thenoyltrifluoroacetone (TTA). ATA, BTA, and FTA were prepared by the method of Reid and Calvin (CA 44, 9921c). The I were prepared from aqueous 5% metal NO₃- (or BeSO₄) solution by adding 5 g. of NaOAc/100 ml. at once, mixing with an alc. ligand (AA-TTA) solution until reaction appeared complete, filtering, washing, recrystg., and drying the I. Vapor pressure-temperature data were obtained by using an isotenoscopic method described by Smith and Menzies (CA 5, 2326) and modified by Booth and Halbedel (CA 41, 1600g). The precision was ±1 mm. Hg; the plots of log vapor pressure of the I vs. 1/T are linear. The vapor pressures of Al(ATA)₃, Be(AA)₂, Be(ATA)₂, and of Cu(ATA)₂ are 100 at 205°, 431 at 264°, 656 at 231°, and 7 mm. at 185°, resp. The sublimation temps. (at which sublimate was first observed) were measured in a vertical vacuum sublimator at 0.25 mm. pressure, with the sample 5 mm. from the surface of the cold finger (20°) having a flat surface at 45° to the vertical. The m.ps. and sublimation temps. of Be(AA)₂, Al(AA)₃, Mn(AA)₂, Fe(AA)₃, Co(AA)₂, Ni(AA)₂, Cu(AA)₂, and the same metal I analogs of ATA, BA, BTA, FTA, and TTA are 108°, 37°; 112, 74; <200 (decompose), 91; 179, 69; sublimes 120% 0.2 mm., 100; decompose 230, 185; decompose 230, 72; 112, 38; 117, 48; -, -; 115, 48; -, -; sublimes 150°, 0.5 mm., 111; 200, 55; 213, 105; 224-25, 152; decompose >140, 95; 222-24, 125; 181, 162; -, -; 197, 135; 143-44, 78; 173-74, 88; 129-130, -; 128-129, 89; 158, 55; 223-24, 98; 241, 130; 169-170, 71; 204-205, 95; 146-149, -; 207-208, 95; 215-220, 63; 293-296, 65; 227-228, 105; 169-170, 73; 203-205, 125; 177-179, -; 159-160, 135; 215, 69; 291-295, 70; and 242-243° 112°, resp.

L7 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1963:433656 CAPLUS

DN 59:33656

OREF 59:6015f-g

TI Steric effects in simple octahedral complexes

AU Graddon, D. P.; Schulz, R.; Watton, E. C.; Weeden, D. G.

CS Univ. N. S. Wales, Sydney

SO Nature (London, United Kingdom) (1963), 198(4887), 1299-1300

2/1/67
p26
p28

CODEN: NATUAS; ISSN: 0028-0836

DT Journal
LA Unavailable
AB The behavior of 2-MeC₅H₄N was compared with that of C₅H₅N and 4-MeC₅H₄N in simple octahedral complexes, e.g., Co(II) halide, Cu(II) halide, Zn β -diketone, Co(II) β -diketone, and Ni(II) β -diketone complexes. The steric effects varied greatly from 1 series of compds. to another.

L7 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1962:467479 CAPLUS

DN 57:67479

OREF 57:13398d-e

TI Polymerization of transition metal β -diketone chelates

AU Graddon, D. P.

CS Univ. New South Wales, Sydney

SO Nature (London, United Kingdom) (1962), 195, 891-2

CODEN: NATUAS; ISSN: 0028-0836

DT Journal

LA Unavailable

AB Bisbenzoylacetonato-Ni(II) is a green anhydrous compound, reacts with H₂O, alcs., or heterocyclic bases to form bis-adducts; mean mol. wts.: 1195 in Ph₃CH, 1100 in naphthalene, 1187 in Ph₂NH, and 392 in camphor (theory for monomer 381, trimer 1143). Bis-(acetyl-acetonato)Co(II) is a plum-red powder, readily forms adducts with H₂O, alcs., and heterocyclic bases; mean mol. wts.: 766 in Ph₃CH, 816 in Ph₂NH, and 257 in camphor (theory for monomer 257, trimer 771). Bis(acetylacetonato)oxo-V(IV) had mol. wts. of 523 in Ph₃CH, 546 in biphenyl, 510 in Ph₂NH, and 247 in camphor (theory for monomer 265, dimer 530). Bis(acetylacetonato)Zn(II) had mol. wts. of 285 in Ph₃CH, 275 in biphenyl, and 281 in Ph₂NH (theory for monomer 263.5).

L7 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1959:60717 CAPLUS

DN 53:60717

OREF 53:10972f-i

TI Spectral investigations of metal complexes of .
beta.-diketones. I. Nuclear magnetic resonance and
ultraviolet spectra of acetylacetonates

AU Holm, R. H.; Cotton, F. A.

CS Massachusetts Inst. of Technol., Cambridge

SO Journal of the American Chemical Society (1958), 80, 5658-63

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

AB The nuclear resonances of the H bonded to the middle C of the chelate ring of metal-acetylacetonate complexes, and of the analogous atom in acetylacetonate were determined. For acetylacetonate and the Be, Zn, Al, Ga, In, Sc, Y, Co(III), Zr(IV), and Th(IV) complexes in CCl₄ the mean chemical shift, referred to H₂O, is 0.59 ± 0.05 p.p.m. This result does not provide support for the postulate of benzenoid resonance in the chelate rings. The wave lengths and extinction coeffs. for the peak absorption in the ultraviolet region are reported for acetylacetonate and complexes with Li, Na, K, Be, Mg, Ca, Sr, Ba, Al, Ga, In, Zr, Th, Zn, Cd, Sc, Y, La.2H₂O, V(III), VO(IV).H₂O, Mn(II), Mn(II).2H₂O, Mn(III), Co(II), Ni(II), Fe(III), Co(III), Cu(II), and Cr(III) in EtOH and (or) CHCl₃. Spectra are shown for the Fe(III), Co(III), and Cu(II) complexes in absolute alc. and for the Cr(III) complex in CHCl₃. The data indicate that the electrostatic model of Belford (C.A. 50, 4694e) cannot account for the variation in energy of the presumed $\pi - \pi^*$ transition. The energy of this transition cannot be correlated with any simple parameter and is believed to be determined by several parameters including the ability of the metal ion to participate in $d\pi - p\pi$ overlap with the π system of the chelate ring.

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P24

=> s l4 and metal salts

1710547 METAL
614704 SALTS
51457 METAL SALTS
(METAL(W) SALTS)

L8 557 L4 AND METAL SALTS

=> s l4 and beta-diketone metal salts

1432549 BETA
13325 DIKETONE
1710547 METAL
614704 SALTS
2 BETA-DIKETONE METAL SALTS
(BETA(W) DIKETONE(W) METAL(W) SALTS)

L9 1 L4 AND BETA-DIKETONE METAL SALTS

=> d bib abs

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:272286 CAPLUS

DN 120:272286

TI Chlorine-containing resin compositions including zinc plumbate and
β-diketones

IN Takatori, Katsuyuki; Iizuka, Shunichi

PA Asahi Denka Kogyo KK, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05311020	A	19931122	JP 1992-120893	19920513 <--
JP 1992-120893		19920513		

AB Title low-fuming fire-resistant compns. showing discoloration prevention
contain Cl-containing resins 100, Zn plumbate (I) and/or Zn hydroxyplumbate
0.01-20, and .beta.-diketone (metal
salts) 0.001-5 parts. Thus, a composition comprising PVC 100, CaCO₃
100, di-2-ethylhexyl phthalate 50, an epoxidized soybean oil 2,
dibenzoylmethane 0.05, I 3, and other additives 3.5 parts was roll-kneaded
and press-molded to give a test piece showing limited O index (LOI) 24.6,
low fume, and less flow in burning (UL-90).

=> s l4 and metal beta-diketonate salt#

1710547 METAL
1432549 BETA
3182 DIKETONATE
1182858 SALT#
0 METAL BETA-DIKETONATE SALT#
(METAL(W) BETA(W) DIKETONATE(W) SALT#)

L10 0 L4 AND METAL BETA-DIKETONATE SALT#

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FILE 'REGISTRY' ENTERED AT 15:51:34 ON 01 FEB 2007

L1 STRUCTURE UPLOADED

L2 50 S L1

L3 31098 S L1 FULL

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PVG
P 20/20

FILE 'CAPLUS' ENTERED AT 15:52:14 ON 01 FEB 2007

L4 29636 S L3 AND PY<=2002
L5 2325 S L4 AND SALTS
L6 40 S L5 AND METAL OXIDE
L7 15 S L4 AND METAL COMPLEXES OF BETA-DIKETONE#
L8 557 S L4 AND METAL SALTS
L9 1 S L4 AND BETA-DIKETONE METAL SALTS
L10 0 S L4 AND METAL BETA-DIKETONATE SALT#

SN10/510,476 Page 1 of 244 STIC STN SEARCH

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L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2004-510476/APP5

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 2003:818473 HCAPLUS Full-text
DOCUMENT NUMBER: 139:308120
TITLE: Production of polyoxymethylene in the presence of
diketonate metal complexes
INVENTOR(S): Luinstra, Gerrit
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXX02
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003085016	A1	20031016	WO 2003-EP3744	20030410
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TO, TG			
DE 10215976	A1	20031023	DE 2002-10215976	20020411
AU 2003227601	A1	20031020	AU 2003-227601	20030410
EP 1497346	A1	20050119	EP 2003-725003	20030410
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1653104	A	20050810	CN 2003-810655	20030410
JP 2005526880	T	20050908	JP 2003-582204	20030410
US 20050255990	A1	20051117	US 2004-510476	20041007 --
PRIORITY APPLN. INFO.:			DE 2002-10215976	20020411
			WO 2003-EP3744	A 20030410

OTHER SOURCE(S): MARPAT 139:308120
ED Entered STM: 17 Oct 2003
AB A method for production of polyoxymethylene comprises contacting a formaldehyde source with a catalyst of the formula $(R1)(CO)CR2(CO)R3)M2$, where M is TiO, ZrO, HfO, VO, CrO2, MoO2, ReO2, Fe, Ru, Co, Rh, Ir, Ni, Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO; R1, R2 and R3 are independently groups chosen from H, alkyl, aryl, or arylalkyl; R1, R2 and R3 can be completely or partly halogenated; Z is an anion; and n is 1 or 2. Thus, chlorodioxo(2,4-pentanedione)molybdenum was produced and used as a catalyst to copolymerize 1,3-dioxepane and trioxane at 80°. The produced copolymer had weight-average mol. weight of 95,000 and polydispersity of 5.5.
IC ICM C08G002-06
ICS C08G002-06

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SN10/510,476 Page 3 of 244 STIC STN SEARCH

copolymer 30525-89-4P, Paraformaldehyde
RL: IMF (Industrial manufacture); PREP (Preparation)
(production of polyoxymethylene in presence of diketonate metal complexes)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L2 1 SEA FILE=WPIX ABB=ON PLU=ON US2004-510476/APP5

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YOU HAVE REQUESTED DATA FROM FILE 'WPIX' - CONTINUE? (Y)/N:y

L2 ANSWER 1 OF 1 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 2003-902986 [82] WPIX
DOC. NO. CPI: C2003-256470 [82]
TITLE: Novel complex catalysts are useful for the production of polyoxymethylene
DERIVAT CLASS: A25; E12
INVENTOR: LUINSTR A G
PATENT ASSIGNEE: (BADI-C) BASF AG; (LUIN-I) LUINSTR A G
COUNTRY COUNT: 102

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003085016	A1	20031016	(200382)*	DE	24[0]	C08G002-08
DE 10215976	A1	20031023	(200382)	DE	B01J031-22	
AU 2003227601	A1	20031020	(200436)	EN		
EP 1497346	A1	20050119	(200506)	DE		C08G002-08
KR 2004099413	A	20041126	(200523)	KO		
JP 2005526880	W	20050908	(200559)	JA	23	C08G002-06
CN 1653104	A	20050810	(200572)	ZH		
US 20050255990	A1	20051117	(200576)	EN		B01J031-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003085016	A1	WO 2003-EP3744	20030410
DE 10215976	A1	DE 2002-10215976	20020411
AU 2003227601	A1	AU 2003-227601	20030410
CN 1653104	A	CN 2003-810655	20030410
EP 1497346	A1	EP 2003-725003	20030410
JP 2005526880	W	JP 2003-582204	20030410
EP 1497346	A1	WO 2003-EP3744	20030410
JP 2005526880	W	WO 2003-EP3744	20030410
US 20050255990	A1	WO 2003-EP3744	20030410
US 20050255990	A1	US 2004-510476	20041007
KR 2004099413	A	KR 2004-716027	20041008

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003227601	A1	Based on WO 2003085016 A

3

SN10/510,476 Page 2 of 244 STIC STN SEARCH

CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 67
ST diketonate metal complex polyoxymethylene prodn
IT Transition metal complexes
RL: CAT (Catalyst use); USES (Uses)
(1,3-diketonate complexes); production of polyoxymethylene in presence of diketonate metal complexes)
IT Ketones, uses
RL: CAT (Catalyst use); USES (Uses)
(1,3-diketonates, transition metal complexes); production of polyoxymethylene in presence of diketonate metal complexes)
IT Polymerization
(production of polyoxymethylene in presence of diketonate metal complexes)
IT Polyoxymethylene, preparation
Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(production of polyoxymethylene in presence of diketonate metal complexes)
IT 7439-88-5D, Iridium, 1,3-diketonate complexes 7439-89-6D, Iron, 1,3-diketonate complexes 7439-92-1D, Lead, 1,3-diketonate complexes 7439-96-5D, Manganese, 1,3-diketonate complexes 7439-97-6D, Mercury, 1,3-diketonate complexes 7439-98-7D, Molybdenum, 1,3-diketonate complexes 7440-02-0D, Nickel, 1,3-diketonate complexes 7440-05-3D, Palladium, 1,3-diketonate complexes 7440-06-4D, Platinum, 1,3-diketonate complexes 7440-15-5D, Rhodium, 1,3-diketonate complexes 7440-16-6D, Rhodium, 1,3-diketonate complexes 7440-18-8D, Ruthenium, 1,3-diketonate complexes 7440-31-5D, Tin, 1,3-diketonate complexes 7440-32-6D, Titanium, 1,3-diketonate complexes 7440-33-7D, Tungsten, 1,3-diketonate complexes 7440-43-9D, Cadmium, 1,3-diketonate complexes 7440-47-3D, Chromium, 1,3-diketonate complexes 7440-48-4D, Cobalt, 1,3-diketonate complexes 7440-50-8D, Copper, 1,3-diketonate complexes 7440-58-6D, Hafnium, 1,3-diketonate complexes 7440-62-2D, Vanadium, 1,3-diketonate complexes 7440-66-0D, Zinc, 1,3-diketonate complexes 7440-67-7D, Zirconium, 1,3-diketonate complexes
RL: CAT (Catalyst use); USES (Uses)
(diketonate metal complexes used as catalysts for production of polyoxymethylene)
IT 611179-99-8P 611180-00-8P 611180-01-9P 611180-02-0P 611180-03-1P 611180-04-2P 611180-05-3P 611180-06-4P 611180-07-5P 611180-08-6P 611180-09-7P 611180-10-0P 611180-11-1P 611180-12-2P 611180-13-3P 611180-14-4P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(diketonate metal complexes used as catalysts for production of polyoxymethylene)
IT 123-54-6, 2,4-Pentanedione, reactions 815-57-6, 3-Methyl-2,4-pentanedione 893-33-4, 4,4,4-Trifluoro-1-(2-naphthyl)-1,3-butanedione 1118-71-4, 2,2,6,6-Tetramethyl-3,5-heptanedione 1522-22-1, 1,1,1,5,5,5-Hexafluoro-2,4-pentanedione 2923-28-6, Silver triflate 7307-04-2, 2,2-Dimethyl-3,5-heptanedione 13637-68-8, Molybdenum dioxodichloride 13988-67-5, 4,4-Dimethyl-1-phenyl-1,3-pentanedione 20583-66-8, 1,1,1,5,5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione
RL: RCT (Reactant); RACT (Reactant or reagent)
(diketonate metal complexes used as catalysts for production of polyoxymethylene)
IT 124-41-4, Sodium methanolate
RL: RGT (Reagent); RACT (Reactant or reagent)
(diketonate metal complexes used as catalysts for production of polyoxymethylene)
IT 9002-81-7P, Poly(oxymethylene) 25214-85-1P, 1,3-Dioxepane-trioxane

2

SN10/510,476 Page 4 of 244 STIC STN SEARCH

EP 1497346 A1 Based on WO 2003085016 A
JP 2005526880 W Based on WO 2003085016 A

PRIORITY APPLN. INFO: DE 2002-10215976 20020411

INT. PATENT CLASSIF.:

MAIN: C08G002-06; C08G002-08
IPC RECLASSIF.: C07F0011-00 [I,A]; C07F0011-00 [I,C]; C08G0002-00 [I,C]; C08G0002-06 [I,A]; C08G0002-08 [I,A]

BASIC ABSTRACT:

WO 2003085016 A1 UPAB: 20060203
NOVELTY - Novel complex catalysts are claimed.
DETAILED DESCRIPTION - Novel complex catalysts (I) of formula (I) are claimed.
 $M = TiO, ZrO, HfO, VO, CrO_2, MoO_2, ReO_2, Fe, Ru, Co, Rh, Ir, Ni, Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO \text{ or } PbO$
 $R1, R2, R3 = H, \text{ alkyl, aryl, aralkyl, optionally halogenated;}$
 $Z = \text{anion; and}$
 $n = 1 \text{ or } 2$
An INDEPENDENT CLAIM is also included for a process for the production of polyoxymethylene by contacting a source of formaldehyde with a catalyst (I).
USE - The novel complex catalysts (I) are useful for the production of polyoxymethylene.
ADVANTAGE - The catalysts (I) have a short induction time and are tolerant to impurities and traces of water in the formaldehyde source. MANUAL CODE: CPI: A02-A06; A02-A07; A05-H02A; E05-F02; E05-L; E05-M; E05-N; E07-A04; E10-D01D

AN 2003-902986 [82] WPIX
DC A25; E12
IC ICM C08G002-06; C08G002-08
IPCR C07F0011-00 [I,A]; C07F0011-00 [I,C]; C08G0002-00 [I,C]; C08G0002-06 [I,A]; C08G0002-08 [I,A]

MC CPI: A02-A06; A02-A07; A05-H02A; E05-F02; E05-L; E05-M; E05-N; E07-A04; E10-D01D

PLE UPA

20060203
[1.1] 018 G1503 D01 D50 D81 F22 DCN: R00001 DCR: 34; H0000; L9999
L2512 L2506; P1887 P0248 P0226 D01 D10 D11 F24;
[1.2] 018 ND02;
[1.3] 018 D00 D01 D11 D10 D18-R D69 7A-R D54 D51 D57 D59 D61-R Sn 4A
Pb Cl 7A O- 6A Ti 4B Tr 2r Hf V- 5B Cr 6B Mo W- Mn 7B Fe 8B Co
Ir Ni Pd Pt Cu 1B Zn 2B Cd Hg F- D19 D18 D20 F62 DCN: Re Ru Rh
C999 C102 C000; C999 C259; C999 C248;
[1.4] 018 D01 D50 D85 F23 D11 D10; C999 C306; C999 C157;
[1.5] 018 D00 D70 O- 6A Cl 7A Mo 6B Tr; C999 C306; C999 C157;
CNC UPB 20060203

DCN: 0001-U 0917-U
DCR: 1137-U 34-U

M3 *01* A429 A680 A940 A960 C108 C710 G001 G002 G010 G011 G012 G013 G019
G020 G021 G022 G029 G040 G100 G111 G112 G221 G299 H600 H608 H609
H641 H642 H643 H681 H682 H683 H689 M121 M122 M124 M129 M135 M139
M210 M211 M212 M213 M214 M215 M216 M220 M221 M222 M223 M224 M225
M226 M231 M232 M233 M262 M280 M281 M282 M311 M312 M313 M314 M315
M316 M320 M321 M322 M331 M332 M333 M334 M340 M342 M343 M344 M349
M352 M362 M372 M391 M392 M411 M510 M520 M530 M531 M532 M533 M540
M520 M530 M710 M781 G121 R038 H905 H904
MCN: 0111-66401-N 0111-66401-U
M3 *02* A350 A426 A427 A428 A429 A430 A544 A545 A546 A548 A677 A678 A680
A922 A960 C108 C710 C801 C802 C803 C804 C805 C806 C807 G001 G002
G010 G011 G012 G013 G019 G020 G021 G022 G029 G040 G100 G111 G112
G221 G299 H600 H608 H609 H641 H642 H643 H681 H682 H683 H689 M121

4

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OTHER NAMES:

6

Other Sources: DSL**, EINECS**, TSCA**

8

R2 C=O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

72719 REFERENCES IN FILE CA (1907 TO DATE)
 6800 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 72839 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 19 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d que stat 124
 L20 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L24 81815 SEA FILE-REGISTRY 555 FUL L20

100.01 PROCESSED 196661 ITERATIONS
 SEARCH TIME: 00.00.01

81815 ANSWERS

=> d que stat 130
 L20 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L24 81815 SEA FILE-REGISTRY 555 FUL L20
 L25 STR



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10

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VAR G1-TI/2R/HF/V/CR/MO/W/HN/RE/YE/RU/CO/RH/IR/NI/PD/PT/CJ/ZN

MODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L27 STR



VAR G1-CD/HG/SN/PB

MODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L30 53675 SEA FILE-REGISTRY SUB=L24 555 FUL (L25 OR L27)

100.01 PROCESSED 54971 ITERATIONS 53675 ANSWERS
 SEARCH TIME: 00.00.01

=> d que nos 177
 L1 1 SEA FILE-HCAPIUS ABB-ON PLU-ON US2004-510476/APP5
 L3 TRANSFER PLU-ON L1 1- RN : 53 TERMS
 L4 53 SEA FILE-REGISTRY ABB-ON PLU-ON L3
 L5 3 SEA FILE-REGISTRY ABB-ON PLU-ON L4 AND PMS/CI
 L6 1 SEA FILE-REGISTRY ABB-ON PLU-ON FORMALDEHYDE/CN
 L7 1 SEA FILE-REGISTRY ABB-ON PLU-ON PARAFORMALDEHYDE/CN
 L8 1 SEA FILE-REGISTRY ABB-ON PLU-ON TRIOXANE/CN
 L9 1 SEA FILE-REGISTRY ABB-ON PLU-ON TETRAOXANE/CN
 L10 4 SEA FILE-REGISTRY ABB-ON PLU-ON (L6 OR L7 OR L8 OR L9)
 L13 50 SEA FILE-REGISTRY ABB-ON PLU-ON L4 NOT (L5 OR L10)
 L14 42 SEA FILE-REGISTRY ABB-ON PLU-ON L13 AND M/ELS
 L15 2 SEA FILE-REGISTRY ABB-ON PLU-ON L14 AND (AG/ELS OR NA/ELS)
 L16 40 SEA FILE-REGISTRY ABB-ON PLU-ON L14 NOT L15
 L20 STR
 L24 81815 SEA FILE-REGISTRY 555 FUL L20
 L25 STR
 L27 STR
 L30 53675 SEA FILE-REGISTRY SUB=L24 555 FUL (L25 OR L27)
 L32 QUE ABB-ON PLU-ON LUINSTR, G7/AU
 L33 QUE ABB-ON PLU-ON BASF/CS,SO,FA

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L34 QUE ABB-ON PLU-ON AY<2003 OR PY<2003 OR PRY<2003 OR MY
 <2003 OR REVIEW/DT
 L36 QUE ABB-ON PLU-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
 R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
 ? OR ?HEPTANDION?
 L37 QUE ABB-ON PLU-ON ?CATALY?
 L38 QUE ABB-ON PLU-ON ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMET
 HYLEN?) OR (POLYOXY(1A)METHYLEN?)
 L39 QUE ABB-ON PLU-ON ?POLYMER OR HOMOPOLYMER? OR ?POLYMER
 I?
 L40 QUE ABB-ON PLU-ON FORMALDEHYD? OR TRIOXANE OR TETRAOXA
 NE OR TETROXANE OR PARAFORMALDEHYD?
 L42 QUE ABB-ON PLU-ON "POLYMERIZATION CATALYSTS"+PFT,OLD,N
 EW,NT/CT
 L43 QUE ABB-ON PLU-ON POLYOXYALKYLENES+PFT,OLD,NEW,NT/CT
 L44 QUE ABB-ON PLU-ON "POLYOXYALKYLENES, PREPARATION"+PFT,
 OLD,NEW,NT/CT
 L45 QUE ABB-ON PLU-ON POLYOXYMETHYLENES+PFT,OLD,NEW,NT/CT
 L46 QUE ABB-ON PLU-ON "POLYOXYMETHYLENES, PREPARATION"+PFT
 ,OLD,NEW,NT/CT
 L48 16 SEA FILE-REGISTRY ABB-ON PLU-ON L4 AND L24
 L49 1 SEA FILE-HCAPIUS ABB-ON PLU-ON L48
 L50 1858 SEA FILE-HCAPIUS ABB-ON PLU-ON L16 (L) L36
 L51 144654 SEA FILE-HCAPIUS ABB-ON PLU-ON L16 (L) CAT/RL
 L52 217 SEA FILE-HCAPIUS ABB-ON PLU-ON L50 AND L51
 L53 45193 SEA FILE-HCAPIUS ABB-ON PLU-ON L30
 L54 10238 SEA FILE-HCAPIUS ABB-ON PLU-ON L53 (L) CAT/RL
 L55 3687 SEA FILE-HCAPIUS ABB-ON PLU-ON L53 (L) (L38 OR L39)
 L56 10791 SEA FILE-HCAPIUS ABB-ON PLU-ON L53 (L) L37
 L57 2657 SEA FILE-HCAPIUS ABB-ON PLU-ON (L54 OR L56) AND L55
 L58 3936 SEA FILE-HCAPIUS ABB-ON PLU-ON L53 AND L42
 L59 8834 SEA FILE-HCAPIUS ABB-ON PLU-ON L5
 L60 247485 SEA FILE-HCAPIUS ABB-ON PLU-ON ((?POLYOXYMETHYLEN?/OBI OR
 (POLY/OBI(1A)OXYMETHYLEN?/OBI) OR (POLYOXY/OBI(1A)METHYLEN?/OBI
)) OR (L43 OR L44 OR L45 OR L46))
 L61 45115 SEA FILE-HCAPIUS ABB-ON PLU-ON L40 (L5A) L39
 L62 3796 SEA FILE-HCAPIUS ABB-ON PLU-ON L10 (L) L39
 L63 279 SEA FILE-HCAPIUS ABB-ON PLU-ON (L59 OR L60 OR L61 OR L62)
 AND (L49 OR L52 OR L57 OR L58)
 L64 44 SEA FILE-HCAPIUS ABB-ON PLU-ON L63 AND (L5 OR L38 OR (L45 OR
 L46))
 L65 SEL PLU-ON L5 1- NAME : 45 TERMS
 L66 35639 SEA FILE-HCAPIUS ABB-ON PLU-ON L65
 L67 32 SEA FILE-HCAPIUS ABB-ON PLU-ON L63 AND L66
 L68 4 SEA FILE-HCAPIUS ABB-ON PLU-ON L63 AND (L32 OR L33)
 L69 159 SEA FILE-HCAPIUS ABB-ON PLU-ON L53 AND (L32 OR L33)
 L70 11 SEA FILE-HCAPIUS ABB-ON PLU-ON L69 AND (L59 OR L60 OR L61 OR
 L62)
 L71 11 SEA FILE-HCAPIUS ABB-ON PLU-ON L68 OR L70
 L72 1 SEA FILE-HCAPIUS ABB-ON PLU-ON L71 AND L32
 L73 11 SEA FILE-HCAPIUS ABB-ON PLU-ON (L71 OR L72)
 L75 50 SEA FILE-HCAPIUS ABB-ON PLU-ON L64 OR L67
 L76 48 SEA FILE-HCAPIUS ABB-ON PLU-ON L75 NOT L73
 L77 48 SEA FILE-HCAPIUS ABB-ON PLU-ON L76 AND L34

=> d his 192

(FILE 'USPATFULL, USPAT2' ENTERED AT 11:25:12 ON 05 FEB 2007)
 192 12 S L91 AND L34

11

12

=> d que nos 192
 L1 1 SEA FILE-HCAPLUS ABB-ON PLU-ON US2004-510476/APPS
 L3 53 TRANSFER PLU-ON L1 1- RN : 53 TERMS
 L4 53 SEA FILE-REGISTRY ABB-ON PLU-ON L3
 L5 3 SEA FILE-REGISTRY ABB-ON PLU-ON L4 AND PMS/CI
 L6 1 SEA FILE-REGISTRY ABB-ON PLU-ON FORMALDEHYD/CN
 L7 1 SEA FILE-REGISTRY ABB-ON PLU-ON PARAFORMALDEHYD/CN
 L8 1 SEA FILE-REGISTRY ABB-ON PLU-ON TRIOXANE/CN
 L9 1 SEA FILE-REGISTRY ABB-ON PLU-ON TETRAOXANE/CN
 L10 4 SEA FILE-REGISTRY ABB-ON PLU-ON (L6 OR L7 OR L8 OR L9)
 L13 50 SEA FILE-REGISTRY ABB-ON PLU-ON L4 NOT (L5 OR L10)
 L14 42 SEA FILE-REGISTRY ABB-ON PLU-ON L13 AND M/ELS
 L15 2 SEA FILE-REGISTRY ABB-ON PLU-ON L14 AND (AG/ELS OR NA/ELS)
 L16 40 SEA FILE-REGISTRY ABB-ON PLU-ON L14 NOT L15
 L34 QUE ABB-ON PLU-ON AY<2003 OR PY<2003 OR PRY<2003 OR MY
 <2003 OR REVIEW/DT
 L45 QUE ABB-ON PLU-ON POLYOXYMETHYLENES+PPT,OLD,NEW,NT/CT
 L46 QUE ABB-ON PLU-ON "POLYOXYMETHYLENES, PREPARATION"+PPT
 ,OLD,NEW,NT/CT
 L88 2441 SEA L5
 L89 231 SEA L88 AND (L45 OR L46)
 L90 255 SEA L88 AND L16
 L91 21 SEA L89 AND L90
 L92 12 SEA L91 AND L34

=> d que stat 194
 L20 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L94 0 SEA FILE-WPIX 555 PUL L20

100.0% PROCESSED 3551 ITERATIONS 0 ANSWERS
 SEARCH TIME: 00.00.05

=> d que 1115
 L32 QUE ABB-ON PLU-ON LUINSTR, G7/AU
 L33 QUE ABB-ON PLU-ON BASF/CS,SO,PA
 L34 QUE ABB-ON PLU-ON AY<2003 OR PY<2003 OR PRY<2003 OR MY

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L37 QUE ABB-ON PLU-ON ?CATALYT?
 L38 QUE ABB-ON PLU-ON ?POLYOXYMETHYLEN? OR (POLY(IA)OXYMET
 HYLEN?) OR (POLYOXY(IA)METHYLEN?)
 L40 QUE ABB-ON PLU-ON FORMALDEHYD? OR TRICKANE OR TETRAOXA
 NE OR TETROKANE OR PARAFORMALDEHYD?
 L65 SEL PLU-ON L5 1- NAME : 45 TERMS
 L85 QUE ABB-ON PLU-ON TI OR TIO OR ZR OR ZRO OR VO OR V OR
 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
 O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
 OR CU OR ZN OR CD OR HG OR SN OR SMO OR PBO OR PB
 L86 QUE ABB-ON PLU-ON TITAN? OR ZIRCON? OR HAFN? OR VANAD?
 OR CHERMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
 OR MANGANES? OR RHENIUM? OR RHEMAT? OR IRON OR FERRIC OR
 FERRIUM OR FERROUS OR RUTHEM? OR COBALT? OR RHODIUM? OR
 RHODAT? OR IRIDIUM? OR IRIDAT?
 L87 QUE ABB-ON PLU-ON NICKEL OR PALLAD? OR PLATINAT? OR PL
 ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
 M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
 R LEAD
 L116 2328 SEA L5
 L117 3668 SEA (L85 OR L86 OR L87) (10A) L36
 L118 381 SEA L117 (L) L37
 L119 0 SEA L116 AND L118
 L120 11873 SEA L65
 L121 11991 SEA L120 OR L38
 L122 0 SEA L118 AND L121
 L123 5 SEA L119 AND L40
 L124 0 SEA L117 AND (L116 OR L121)
 L125 5 SEA L119 OR L122 OR L123 OR L124
 L126 2 SEA (L116 OR L117 OR L120 OR L121) AND (L32 OR L33)
 L127 5 SEA L125 NOT L126
 L128 1 SEA L127 AND L34

=> => d his 1161

(FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, JICST-EPLUS, APOLLIT, CABA,
 SCISEARCH, CONFSCI, DISSABS' ENTERED AT 12:11:58 ON 05 FEB 2007)
 L161 2 S L160 AND L34
 SAVE TEMP L161 L40476/ULB/A

FILE 'STNGUIDE' ENTERED AT 12:31:14 ON 05 FEB 2007

=> d que 1161
 L1 1 SEA FILE-HCAPLUS ABB-ON PLU-ON US2004-510476/APPS
 L3 TRANSFER PLU-ON L1 1- RN : 53 TERMS
 L4 53 SEA FILE-REGISTRY ABB-ON PLU-ON L3
 L5 3 SEA FILE-REGISTRY ABB-ON PLU-ON L4 AND PMS/CI
 L32 QUE ABB-ON PLU-ON LUINSTR, G7/AU
 L33 QUE ABB-ON PLU-ON BASF/CS,SO,PA
 L34 QUE ABB-ON PLU-ON AY<2003 OR PY<2003 OR PRY<2003 OR MY
 <2003 OR REVIEW/DT
 L36 QUE ABB-ON PLU-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
 R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
 ? OR ?HEPTANDION?
 L37 QUE ABB-ON PLU-ON ?CATALYT?
 L38 QUE ABB-ON PLU-ON ?POLYOXYMETHYLEN? OR (POLY(IA)OXYMET
 HYLEN?) OR (POLYOXY(IA)METHYLEN?)
 L40 QUE ABB-ON PLU-ON FORMALDEHYD? OR TRICKANE OR TETRAOXA

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L36 <2003 OR REVIEW/DT
 QUE ABB-ON PLU-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
 R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
 ? OR ?HEPTANDION?
 L38 QUE ABB-ON PLU-ON ?POLYOXYMETHYLEN? OR (POLY(IA)OXYMET
 HYLEN?) OR (POLYOXY(IA)METHYLEN?)
 L40 QUE ABB-ON PLU-ON FORMALDEHYD? OR TRICKANE OR TETRAOXA
 NE OR TETROKANE OR PARAFORMALDEHYD?
 L85 QUE ABB-ON PLU-ON TI OR TIO OR ZR OR ZRO OR VO OR V OR
 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
 O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
 OR CU OR ZN OR CD OR HG OR SN OR SMO OR PBO OR PB
 L86 QUE ABB-ON PLU-ON TITAN? OR ZIRCON? OR HAFN? OR VANAD?
 OR CHERMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
 OR MANGANES? OR RHENIUM? OR RHEMAT? OR IRON OR FERRIC OR
 FERRIUM OR FERROUS OR RUTHEM? OR COBALT? OR RHODIUM? OR
 RHODAT? OR IRIDIUM? OR IRIDAT?
 L87 QUE ABB-ON PLU-ON NICKEL OR PALLAD? OR PLATINAT? OR PL
 ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
 M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
 R LEAD
 L98 QUE ABB-ON PLU-ON C08G0002-06/IPC
 L99 QUE ABB-ON PLU-ON C08G0002-08/IPC
 L100 QUE ABB-ON PLU-ON (E05-F02 OR E05-L OR E05-M OR E05-N)
 /MC
 L101 QUE ABB-ON PLU-ON ((A922 (P) A960 (P) Q121)/MO,M1,M2,M3
 ,M4,M5,M6
 L102 3485 SEA FILE-WPIX ABB-ON PLU-ON (L85 OR L86 OR L87) (10A) L36
 L103 812 SEA FILE-WPIX ABB-ON PLU-ON L100 AND L36
 L104 15 SEA FILE-WPIX ABB-ON PLU-ON L101 AND (L102 OR L103)
 L105 1 SEA FILE-WPIX ABB-ON PLU-ON L104 AND (L98 OR L99)
 L106 QUE ABB-ON PLU-ON P1887/PLE
 L107 1 SEA FILE-WPIX ABB-ON PLU-ON L104 AND L106
 L108 1 SEA FILE-WPIX ABB-ON PLU-ON L101 AND L100 AND L106
 L109 1 SEA FILE-WPIX ABB-ON PLU-ON L104 AND (L38 OR L40)
 L110 3 SEA FILE-WPIX ABB-ON PLU-ON L104 AND (L32 OR L33)
 L112 15 SEA FILE-WPIX ABB-ON PLU-ON (L104 OR L105) OR (L107 OR L108
 OR L109)
 L113 12 SEA FILE-WPIX ABB-ON PLU-ON L112 NOT L110
 L114 11 SEA FILE-WPIX ABB-ON PLU-ON L113 AND L34
 L115 11 SEA FILE-WPIX ABB-ON PLU-ON L114 AND L36

=> d his 1128

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:56:50 ON 05 FEB 2007)
 L128 1 S L127 AND L34

=> d que nos 1128

L1 1 SEA FILE-HCAPLUS ABB-ON PLU-ON US2004-510476/APPS
 L3 TRANSFER PLU-ON L1 1- RN : 53 TERMS
 L4 53 SEA FILE-REGISTRY ABB-ON PLU-ON L3
 L5 3 SEA FILE-REGISTRY ABB-ON PLU-ON L4 AND PMS/CI
 L32 QUE ABB-ON PLU-ON LUINSTR, G7/AU
 L33 QUE ABB-ON PLU-ON BASF/CS,SO,PA
 L34 QUE ABB-ON PLU-ON AY<2003 OR PY<2003 OR PRY<2003 OR MY
 <2003 OR REVIEW/DT
 L36 QUE ABB-ON PLU-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
 R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
 ? OR ?HEPTANDION?

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NE OR TETROKANE OR PARAFORMALDEHYD?
 L65 SEL PLU-ON L5 1- NAME : 45 TERMS
 L85 QUE ABB-ON PLU-ON TI OR TIO OR ZR OR ZRO OR VO OR V OR
 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
 O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
 OR CU OR ZN OR CD OR HG OR SN OR SMO OR PBO OR PB
 L86 QUE ABB-ON PLU-ON TITAN? OR ZIRCON? OR HAFN? OR VANAD?
 OR CHERMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
 OR MANGANES? OR RHENIUM? OR RHEMAT? OR IRON OR FERRIC OR
 FERRIUM OR FERROUS OR RUTHEM? OR COBALT? OR RHODIUM? OR
 RHODAT? OR IRIDIUM? OR IRIDAT?
 L87 QUE ABB-ON PLU-ON NICKEL OR PALLAD? OR PLATINAT? OR PL
 ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
 M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
 R LEAD
 L146 10824 SEA (METAL OR (L85 OR L86 OR L87)) (7A) L36
 L147 772 SEA L146(15A) (ACTIVAT? OR L37)
 L148 0 SEA L147 AND L38
 L149 8 SEA L147 AND L40
 L150 19047 SEA L65
 L151 0 SEA L147 AND L150
 L152 6 SEA L146 AND (L32 OR L33)
 L154 8 SEA L148 OR L149 OR L151
 L155 1888 SEA L146 AND (ACTIVAT? OR L37)
 L156 14 SEA L155 AND L40
 L157 0 SEA L155 AND L150
 L158 0 SEA L155 AND L38
 L159 14 SEA L154 OR L156 OR L157 OR L158
 L160 14 SEA L159 NOT L152
 L161 2 SEA L160 AND L34

=> d que nos 1143

L1 1 SEA FILE-HCAPLUS ABB-ON PLU-ON US2004-510476/APPS
 L3 TRANSFER PLU-ON L1 1- RN : 53 TERMS
 L4 53 SEA FILE-REGISTRY ABB-ON PLU-ON L3
 L5 3 SEA FILE-REGISTRY ABB-ON PLU-ON L4 AND PMS/CI
 L36 QUE ABB-ON PLU-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
 R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
 ? OR ?HEPTANDION?
 L37 QUE ABB-ON PLU-ON ?CATALYT?
 L38 QUE ABB-ON PLU-ON ?POLYOXYMETHYLEN? OR (POLY(IA)OXYMET
 HYLEN?) OR (POLYOXY(IA)METHYLEN?)
 L39 QUE ABB-ON PLU-ON ?POLYMER OR HOMOPOLYMER? OR ?POLYMER
 ?
 L40 QUE ABB-ON PLU-ON FORMALDEHYD? OR TRICKANE OR TETRAOXA
 NE OR TETROKANE OR PARAFORMALDEHYD?
 L65 SEL PLU-ON L5 1- NAME : 45 TERMS
 L85 QUE ABB-ON PLU-ON TI OR TIO OR ZR OR ZRO OR VO OR V OR
 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
 O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
 OR CU OR ZN OR CD OR HG OR SN OR SMO OR PBO OR PB
 L86 QUE ABB-ON PLU-ON TITAN? OR ZIRCON? OR HAFN? OR VANAD?
 OR CHERMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
 OR MANGANES? OR RHENIUM? OR RHEMAT? OR IRON OR FERRIC OR
 FERRIUM OR FERROUS OR RUTHEM? OR COBALT? OR RHODIUM? OR
 RHODAT? OR IRIDIUM? OR IRIDAT?
 L87 QUE ABB-ON PLU-ON NICKEL OR PALLAD? OR PLATINAT? OR PL
 ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
 M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O

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R LEAD
L129 974 SEA FILE-JAPIO ABB-ON PIJW-ON (METAL OR (L85 OR L86 OR L87))
(15A) L36
L132 844 SEA FILE-JAPIO ABB-ON PIJW-ON L65
L138 201 SEA FILE-JAPIO ABB-ON PIJW-ON L129 AND L37
L139 64 SEA FILE-JAPIO ABB-ON PIJW-ON L138 AND L39
L140 5 SEA FILE-JAPIO ABB-ON PIJW-ON L129 AND ACTIVAT?
L141 3 SEA FILE-JAPIO ABB-ON PIJW-ON L140 AND L39
L142 65 SEA FILE-JAPIO ABB-ON PIJW-ON L139 OR L141
L143 0 SEA FILE-JAPIO ABB-ON PIJW-ON L142 AND (L132 OR L40 OR L38)

=> dup rem 177 192 1115 1128 1161 1143

L143 HAS NO ANSWERS

FILE 'HCAPIUS' ENTERED AT 12:41:55 ON 05 FEB 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'USPATFULL' ENTERED AT 12:41:55 ON 05 FEB 2007

CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 12:41:55 ON 05 FEB 2007

CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIX' ENTERED AT 12:41:55 ON 05 FEB 2007

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FILE 'EMBASE' ENTERED AT 12:41:55 ON 05 FEB 2007

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PROCESSING COMPLETED FOR L77

PROCESSING COMPLETED FOR L92

PROCESSING COMPLETED FOR L115

PROCESSING COMPLETED FOR L128

PROCESSING COMPLETED FOR L161

PROCESSING COMPLETED FOR L143

L162 71 DUP REM L77 L92 L115 L128 L161 L143 (3 DUPLICATES REMOVED)

ANSWERS '1-48' FROM FILE HCAPIUS

ANSWERS '49-58' FROM FILE USPATFULL

ANSWERS '59-69' FROM FILE WPIX

ANSWERS '70-71' FROM FILE EMBASE

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 12:42:06 ON 05 FEB 2007

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Feb 2, 2007 (20070202/UP).

17

=> d ibib ed ab hitind hitatr

YOU HAVE REQUESTED DATA FROM FILE 'HCAPIUS, USPATFULL, WPIX, EMBASE' - CONTINUE?
(Y)/N:y

L162 ANSWER 1 OF 71 HCAPIUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:155690 HCAPIUS Full-text

DOCUMENT NUMBER: 140:181984

TITLE:

Double-metal cyanide catalysts which can be used to prepare polyols and ring opening polymerization

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6696383	B1	20040224	US 2002-251155	20020920 <--
EP 1400281	A1	20040324	EP 2003-19677	20030909 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003004147	A	20040908	BR 2003-4147	20030916 <--
CA 2441185	A1	20040320	CA 2003-2441185	20030917 <--
SG 107154	A1	20041129	SG 2003-5634	20030917 <--
KR 2004025838	A	20040326	KR 2003-64955	20030919 <--
JP 2004114037	A	20040415	JP 2003-327513	20030919 <--
CN 1494946	A	20040512	CN 2003-132776	20030919 <--
US 2004102314	A1	20040527	US 2003-717094	20031119 <--
US 6867162	B2	20050315		
US 2004116281	A1	20040617	US 2003-717093	20031119 <--
US 2002-251155			A 20020920 <--	

PRIORITY APPL. INFO.:

ED Entered STN: 26 Feb 2004

AB

The title (DMC) catalysts are prepared by combining (i) 21 metal salt, (ii) 21 metal cyanide salt, (iii) 21 organic complexing ligand, (iv) 21 alkaline metal salt, and, optionally, (v) 21 functionalized polymer. Surprisingly, DMC catalysts which are preferably prepared with 21 alkaline metal halide, have acceptable activity and can be used to catalyze oxyalkylation reactions. Adm., DMC catalysts can be used to prepare polyols which have reduced levels of high mol. weight tail.

IC

ICN 8013027-26

INCL 502175000; 502200000

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 67

IT

Bile acids

Polycarbonates, uses

Polyesters, uses

Polyethers, uses

Polyoxyalkylenes, uses

Polyoxymethylene, uses

RL: CAT (Catalyst use); USES (Uses)

(double-metal cyanide catalysts which can be used to prepare polyols having reduced levels of high mol. weight fraction)

IT Polyoxymethylene, preparation

18

RL: IMF (Industrial manufacture); PREP (Preparation)

(double-metal cyanide catalysts which can be used to prepare polyols having reduced levels of high mol. weight fraction)

IT Polymerization catalysts

(ring-opening; double-metal cyanide catalysts which can be used to prepare polyols having reduced levels of high mol. weight fraction)

IT 64-17-5, Ethanol, uses 67-63-0, Isopropanol, uses 71-36-3, n-Butanol, uses 75-65-0, tert-Butyl alcohol, uses 78-83-1, Isobutanol, uses 78-92-2, sec-Butanol 553-72-0, Zinc benzoate 557-28-8, Zinc propionate 557-34-6, Zinc acetate 557-41-5, Zinc formate 3017-60-5, Cobalt(II) thiocyanate 3349-06-2, Nickel(II) formate 7447-40-7, Potassium chloride, uses 7447-41-8, Lithium chloride, uses 7550-35-8, Lithium bromide 7646-79-9, Cobalt(II) chloride, uses 7646-85-7, Zinc chloride, uses 7647-14-5, Sodium chloride, uses 7647-15-6, Sodium bromide, uses 7699-45-8, Zinc bromide 7720-78-7, Iron(II) sulfate 7779-88-6, Zinc nitrate 7789-46-0, Iron(II) bromide 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide 9003-06-9, Acrylamide-acrylic acid copolymer 9003-09-2, Polyvinyl methyl ether 9003-20-7, Polyvinyl acetate 9003-39-8, Poly-N-vinylpyrrolidone 9004-62-0, Hydroxyethylcellulose 12619-70-4, Cyclodextrin 13138-45-9, Nickel(II) nitrate 13746-66-2 13963-58-1, Potassium hexacyanocobaltate 14024-63-6, Zinc acetylacetonate 14039-23-7 20775-04-6 21219-53-4 24979-70-2, Poly(4-vinylphenol) 25014-41-9, Polyacrylonitrile 25038-87-3, Polyvinyl methyl ketone 25085-34-1, Acrylic acid-styrene copolymer 25104-37-4, Polyvinyl ethyl ether 25322-69-4, Polypropylene glycol 28062-44-4, N-Vinylpyrrolidone-acrylic acid copolymer 29132-58-9, Acrylic acid-maleic acid copolymer 660410-43-5

RL: CAT (Catalyst use); USES (Uses)

(double-metal cyanide catalysts which can be used to prepare polyols having reduced levels of high mol. weight fraction)

IT 25791-96-2P, Polypropylene glycol glycerol ether

RL: IMF (Industrial manufacture); PREP (Preparation)

(double-metal cyanide catalysts which can be used to prepare polyols having reduced levels of high mol. weight fraction)

IT 14024-63-6, Zinc acetylacetonate 25322-69-4

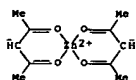
Polypropylene glycol 29132-58-9, Acrylic acid-maleic acid copolymer

RL: CAT (Catalyst use); USES (Uses)

(double-metal cyanide catalysts which can be used to prepare polyols having reduced levels of high mol. weight fraction)

RN 14024-63-6 HCAPIUS

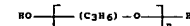
CN Zinc bis(2,4-pentanedionato-KO,KO')-, (T-4)- (9CI) (CA INDEX NAME)



RN 25322-69-4 HCAPIUS

CN Poly[oxy(methyl-1,2-ethanediyl)], α-hydroxy-β-hydroxy- (9CI) (CA INDEX NAME)

19



RN 29132-58-9 HCAPIUS

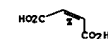
CN 2-Butenedioic acid (2Z)-, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 110-16-7

CMF C4 H4 O4

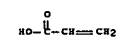
Double bond geometry as shown.



CM 2

CRN 79-10-7

CMF C3 H4 O2



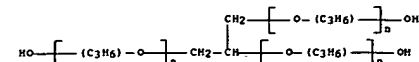
IT 25791-96-2P, Polypropylene glycol glycerol ether

RL: IMF (Industrial manufacture); PREP (Preparation)

(double-metal cyanide catalysts which can be used to prepare polyols having reduced levels of high mol. weight fraction)

RN 25791-96-2 HCAPIUS

CN Poly[oxy(methyl-1,2-ethanediyl)], α,α',α''-1,2,3-propanetriyltris(α-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

23

THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

20

→ d ibib ed ab hitind hitstr 2-48

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' - CONTINUE?
(Y)/N/y

L162 ANSWER 2 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:264466 HCAPLUS Full-text

DOCUMENT NUMBER: 137:125778

TITLE: Synthesis and curing behaviors of a crosslinkable polymer from cashew nut shell liquid

AUTHOR(S): Ikeda, Ryohi; Tanaka, Hozumi; Uyama, Hiroshi; Kobayashi, Shiro

CORPORATE SOURCE: Japan Chemical Innovation Institute (JCII), Joint Research Center for Precision Polymerization (JRCPP), Ibaraki, Tsukuba, 305-8565, Japan
Polymer (2002), 43(12), 3475-3481
CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 10 Apr 2002

AB In the present study, we have oxidatively polymerized cashew nut shell liquid (CNSL), whose main component is cardanol, a phenol derivative having a meta substituent of a C15 unsatd. hydrocarbon chain with one to three double bonds as the major, and examined the curing behaviors of the resulting polymer. Fe-salen efficiently catalyzed the polymerization in bulk at room temperature to give a soluble crosslinkable polymer in a good yield. Various metal complexes also catalyzed the polymerization at 80 °C, although their catalytic activity was lower than that of Fe-salen. The curing by cobalt naphthenate catalyst or thermal treatment took place to give the crosslinked film (artificial urushi) with high hardness and gloss surface. In the curing of poly(CNSL) by the thermal treatment, the crosslinking behaviors and properties of the resulting film were similar to those of a com. available CNSL-formaldehyde resin.

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 44

IT Crosslinking

Crosslinking catalysts

Hardness (mechanical)

(crosslinkable polymer from cashew nut shell liquid)

IT Polymerization catalysts

(oxidative; crosslinkable polymer from cashew nut shell liquid)

IT 50-00-00, Formaldehyde, polymers with cashew

nut shell liquid

RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PRP (Properties); PROC (Process)

(crosslinked; crosslinkable polymer from cashew nut shell

liquid)

IT 132-16-1, Iron(II) phthalocyanine 147-14-8, Copper(II) phthalocyanine

13395-16-9, Copper(II) acetylacetonate 13930-88-6, Vanadyl(2+)

phthalocyanine 14024-48-7, Iron(III) acetylacetonate

14024-48-7 14167-12-5 14167-15-8 14167-18-1 14167-20-5

14167-22-7 14284-89-0, Manganese(III) acetylacetonate

14325-24-7 15279-88-6 36026-26-3 36913-44-7 55095-98-2

315202-98-1 315202-91-6 315202-92-7

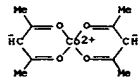
RL: CAT (Catalyst use); USES (Uses)

(polymerization catalyst, oxidative; crosslinkable

21

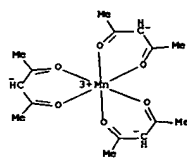
SN10/510,476 Page 23 of 244 STIC STN SEARCH

CN Cobalt, bis(2,4-pentanedionato- κ^2 , κ^2)-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 14284-89-0 HCAPLUS

CN Manganese, tris(2,4-pentanedionato- κ^2 , κ^2)-, (OC-6-11)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L162 ANSWER 3 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:799857 HCAPLUS Full-text

DOCUMENT NUMBER: 136:70155

TITLE: Electroorganic reactions. Part 55. Quinodimethane chemistry. Part 3. Transition metal complexes as inter- and intra-molecular redox catalysts for the electrosynthesis of poly(p-xylylene) (PPX) polymers and oligomers

AUTHOR(S): Janssen, Robert G.; Utley, James H. P.; Carre, Emmanuelle; Sison, Evelyn; Schirmer, Heike

CORPORATE SOURCE: Department of Chemistry, Queen Mary (University of London), London, E1 4NS, UK

SOURCE: Journal of the Chemical Society, Perkin Transactions 2 (2001), (9), 1573-1584

CODEN: JCSPGI; ISSN: 1472-779X

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 04 Nov 2001

AB The role of metal complexes as redox mediators in the electrosynthesis of poly(p-xylylenes) (PPXs) has been explored, with a view to designing metal-

23

polymer from cashew nut shell liquid)

IT 50-00-00, Formaldehyde, polymers with cashew

nut shell liquid

RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PRP (Properties); PROC (Process)

(crosslinked; crosslinkable polymer from cashew nut shell

liquid)

RN 50-00-0 HCAPLUS

CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

W2 C=O

IT 13395-16-9, Copper(II) acetylacetonate 14024-48-7 14284-89-0,

Iron(III) acetylacetonate

Manganese(III) acetylacetonate

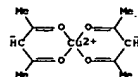
RL: CAT (Catalyst use); USES (Uses)

(polymerization catalyst, oxidative; crosslinkable

polymer from cashew nut shell liquid)

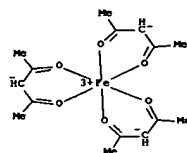
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato- κ^2 , κ^2)-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 14024-18-1 HCAPLUS

CN Iron, tris(2,4-pentanedionato- κ^2 , κ^2)-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 14024-48-7 HCAPLUS

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SN10/510,476 Page 24 of 244 STIC STN SEARCH

containing precursors that can act both as mediators and starting materials for metal-containing polymers. A number of transition metal complexes [Cr(III), Ni(II)] and Co(III)] are efficient redox catalysts for production of quinodimethanes, and hence PPXs. Following encouraging results from expts. using mediators based on anthranilic acid and salicylaldehyde ligands a macrocyclic compound was designed, and successfully prepared by a convergent route that incorporated both a 1,4-bis(chloromethylarene) function as a precursor to a quinodimethane and a Ni(II) salen unit as an intramol. redox catalyst. The macrocycle was successfully reduced cathodically to yield a PPX polymer with bound Ni(II). Evidence is presented for the operation of intramol. redox catalysis (homomediation).

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 78

IT Polymerization catalysts

(redox; transition metal complexes as inter- and intra-mol. redox

catalysts for electrosynthesis of poly(p-xylylene) polymers and

oligomers)

IT 623-24-5 623-25-6 1592-31-0 3752-97-4 10025-73-7, Chromium

chloride (CrCl3) 14167-18-1, Cobalt salen 14167-20-5, Nickel,

[[2,2'-[1,2-ethanediylbis[(nitrilo- κ^N)methylidene]]bis[phenolato-

κ^2]](2-)]-, (SP-4-2) 21679-31-2, Chromium acetylacetonate

46045-95-8 173208-82-7

RL: PRP (Properties)

(cyclic voltammetry of; transition metal complexes as inter- and

intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene)

polymers and oligomers)

IT 95-87-4, 2,5-Dimethylphenol 120-80-9, Catechol, reactions

30525-89-4, Paraformaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(in catalyst preparation; transition metal complexes as inter- and

intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene)

polymers and oligomers)

IT 383891-44-9P, Bis(3,6-dimethylsalicylaldehydato)nickel(II)

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);

USES (Uses)

(transition metal complexes as inter- and intra-mol. redox catalysts

for electrosynthesis of poly(p-xylylene) polymers and oligomers)

IT 21679-31-2, Chromium acetylacetonate

RL: PRP (Properties)

(cyclic voltammetry of; transition metal complexes as inter- and

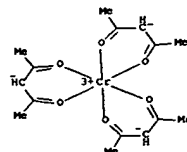
intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene)

polymers and oligomers)

RN 21679-31-2 HCAPLUS

CN Chromium, tris(2,4-pentanedionato- κ^2 , κ^2)-, (OC-6-11)- (9CI)

(CA INDEX NAME)



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IT 30525-89-4, Paraformaldehyde
    RL: RCT (Reactant); RCT (Reactant or reagent)
        (in catalyst preparation: transition metal complexes as inter- and
        intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene)
        polymers and oligomers)
RN 30525-89-4 HCAPLUS
CN Paraformaldehyde (9CI) (CA INDEX NAME)

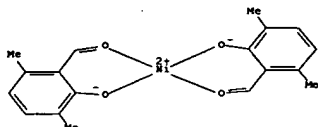
CM 1

CRN 50-00-0
CMF C H2 O

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17 C

IT	383891-44-9P, Bis(3,6-dimethylsalicylaldehydato)nickel(III) RLS: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
RN	383891-44-9 HCAPUS
CN	Nickel, bis[2-(1-hydroxy-4)-3,6-dimethylbenzaldehydato-0]- (9CI) .. (CA [INDEX NAME])



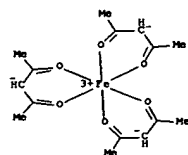
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L162 ANSWER 4 OF 71 HCAPIUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:553653 HCAPIUS Full-text
 DOCUMENT NUMBER: 133:152163
 TITLE: Isocyanate-containing binder for manufacture of
 particleboard or chipboard
 INVENTOR(S): Maboka, Sydney
 PATENT ASSIGNEE(S): Sappt Limited, S. Afr.
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: FIDXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English

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SN10/510,476 Page 27 of 244 STIC STN SEARCH

14024-18-5 MDI, TDI, urea and formaldehyde 26471-62-5D, TDI, polymers with
 MDI, polypropylene glycol triols, urea and formaldehyde 66160-82-5,
Formaldehyde-MDI-TDI-urea copolymer 66160-84-7,
 Diphenylmethane diisocyanate-formaldehyde-urea copolymer
 287476-25-9, Formaldehyde-MDI-polypropylene glycol-urea
copolymer 287476-26-0, Formaldehyde-MDI-polyethylene
glycol-urea copolymer
 RL: TM (Technical or engineered material use); USES (Uses)
 (isocyanate-containing binder for manufacture of particleboard or
 chipboard)
 IT 14024-18-1, Ferric acetylacetonate
 RL: CAT (Catalyst use), USES (Uses)
 (crosslinking catalyst; isocyanate-containing binder for manufacture of
 particleboard or chipboard)
 RN 14024-18-1 HCAPLUS
 CN Iron, tris(2,4-pentanedionato-κO, κO'), (OC-6-11)- (9CI) (CA
 INDEX NAME)



IT 25322-69-4D polypropylene glycol, triols, polymers with MDI, TDI,
urea and formaldehyde
RL: TEM (Technical or engineered material use); USES (Uses)
(isocyanate-containing binder for manufacture of particleboard or
chipboard)
RN 25322-69-4 HCAPLWS
CN POLY[oxy(methyl-1,2-ethanediyl)], α -hydro- ~~α~~ -hydroxy- (9CI)
(CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L162 ANSWER 5 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:294970 HCAPLUS Full-text
DOCUMENT NUMBER: 128:295107
TITLE: Polymerization of formaldehyde
using tetraavalent organo-tin compounds as an initiator
AUTHOR(S): Matsuzaki, Kazuhiko; Masamoto, Junzo

27

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 200004306	A1	200008010	WO 2000-2A19	20000208
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EM, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IL, IE, LT, LU, MC, NL, PT, SE, SF, BJ, CF, CG, CI, CH, CM, GA, GN, GW, GL, IR, HU, MN, TD, TG				
CA 2361618	A1	200008010	CA 2000-2361618	20000208
EP 1161498	A1	20001212	EP 2000-908809	20000208
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
ZA 200106522	A	20030317	ZA 2001-6522	20000208
PRIORITY APPLN. INFO.:			ZA 1999-969	A 19990208
			WO 2000-2A19	W 20000208

Entered STN: 11 Aug 2000
 Title binder comprises Me diisocyanate (I) (sic) and one or more polyurethane catalyst selected from (a) one or more amine compound including aliphatic and aromatic tertiary amine deers, of phenolic esters, ethers, alkenes and/or alcohols and/or (b) one or more anesthetic gas including ethyl ether, nitrous oxide, iron, and/or alkali metal salts, and, optionally, a reduced amount of urea-formaldehyde resin (II). Thus, production of chipboard in a production-plant trial using a II binder containing 0.5% (on bone-dry wood) showed a 14.5% increase in production speed.

ICM C08L097-02
ICS C08G018-16
CC 43-2 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 38
IT Crosslinking catalysts
(delayed action) isocyanate-containing binder for manufacture of particleboard or chipboard)
IT Polyoxyallylenes, uses
RI: TEM (Technical or engineered material use); USES (Uses)
(triols, polymers with MDI, TDI, urea and formaldehyde;
isocyanate-containing binder for manufacture of particleboard or chipboard)
IT 64-19-7D, Acetylacetone 98-94-2, Polycat 8
124-68-5, 2,2-Dimethylethanolamine 280-57-9, Dabco 301-10-0, Stannous octoate 463-79-6D, Carbonic acid, alkali metal salts, uses 471-34-1, Calcium carbonate, uses 3164-85-0, Dabco K 15 4253-22-9 7439-89-6, Iron, uses 7440-31-5, Tin, uses 7440-31-5D, Tin, dialkyl thioacrylate, uses 7440-66-6, Zinc, uses 7440-69-9, Bismuth, uses 14024-19-1, Decyl acetylacetonate 62314-25-4, Dabco THR 2 157974-73-7, Dabco FC 2
RI: CAT (Catalyst use); USES (Uses)
(crosslinking catalyst; isocyanate-containing binder for manufacture of particleboard or chipboard)
IT 50-00-0D, Formaldehyde, polymers with MDI, polypropylene glycol triols, TDI and urea, uses 57-13-6D, Urea, polymers with MDI, polypropylene glycol triols, TDI and formaldehyde, uses 101-68-8D, MDI polymers with polypropylene glycol triols, TDI, urea and formaldehyde 23322-69-4D, Polypropylene glycol, triols, polymers

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SN10/510,476 Page 28 of 244 STIC STN SEARCH

CORPORATE SOURCE: Department of Polyacetal Research and Development,
Asahi Chemical Industry Co., Ltd., Kurashiki, 711,
Japan

SOURCE: Industrial & Engineering Chemistry Research (1998), 37(5), 1729-1735

PUBLISHER: CODEN: IECRED; ISSN: 0888-5985

DOCUMENT TYPE: American Chemical Society Journal

LANGUAGE: English

ED Entered STN: 21 May 1998

AB Polymerization of gaseous formaldehyde in hexane using various initiators including tetraavalent organo-tin compds. was investigated. The end group of the obtained polymer was examined and it was concluded that the chain-transfer agent (such as methanol, etc.) was almost completely consumed during the polymerization of gaseous formaldehyde. Only two series of initiators, quaternary ammonium salt and dialkyltin dimethoxide compds., produced a polymer with a narrow-mol.-weight distribution ($M_w/M_n = 2$). The polymer with the narrow-mol.-weight distribution ($M_w/M_n = 2$) produced a product with high Dart impact strength. The polymer with the broad-mol.-weight distribution ($M_w/M_n > 2.9$) gave the product with low Dart impact strength.

CC 35-3 (Chemistry of Synthetic High Polymers)

ST formaldehyde polymerization catalysts

polyformaldehyde impact strength polydispersity

IT Chain transfer agents

Polymerization

Polymerization catalysts

Polymerization kinetics

(kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)

IT Impact strength

(polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde)

IT Polyoxymethylenes, properties

RL: PRP (Properties)

Polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde

IT 67-56-1, Methanol, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(chain transfer agents; kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)

IT 110-54-3, Hexane, uses

RL: NUU (Other use, unclassified); USES (Uses)

(kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)

IT 50-00-0, Formaldehyde, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)

IT 9002-81-7, Formaldehyde homopolymer

RL: PRP (Properties)

(polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde)

IT 77-58-7, Dibutyltin dilaurate 1067-55-6, Dibutyltin dimethoxide 3090-36-6, Tributyltin laurate 3648-18-8, Dioctyltin dilaurate 13300-45-7, Dibutylidiododecylammonium acetate 14024-48-7

RL: CAT (Catalyst use); USES (Uses)

(polymerization catalyst; kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)

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SN10/510,476 Page 29 of 244 STIC STN SEARCH

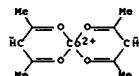
IT 50-00-0, Formaldehyde, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
 RN 50-00-0 HCAPLUS
 CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

RZ C=O

IT 9002-81-7, Formaldehyde homopolymer
 RL: FRP (Properties)
 (polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde)
 RN 9002-81-7 HCAPLUS
 CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



IT 14024-48-7
 RL: CAT (Catalyst use); USES (Uses)
 (polymerization catalyst; kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
 RN 14024-48-7 HCAPLUS
 CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (5P-4-1)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L162 ANSWER 6 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:647940 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:33862
 TITLE: Polymerization of, and depolymerization to, cyclic ethers using selected catalysts
 Drysdale, Neville; Everton, Bockath, Richard Edmund
 du Pont de Nemours, E. I., and Co., USA
 SOURCE: PCT Int. Appl., 92 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent

29

SN10/510,476 Page 31 of 244 STIC STN SEARCH

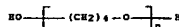
(catalysts for manufacture of)
 IT 1686-23-3DP, Oxotrispropoxyvanadium, reaction products with triflic acid
 2377-86-8P 7440-64-4DP, Ytterbium, nifon salt derivs. 42196-31-6P
 60826-40-6P 60884-91-5P 111287-32-2P 164326-81-2P
 164326-83-4P 164326-84-5P 164326-85-6P 164326-86-7P
 164326-90-3P 164326-91-4P 164326-92-5P 164385-22-2P
 164385-23-3P 164385-24-4P 164385-25-5P 164385-26-6P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (polymerization of cyclic ethers with catalysts from)
 IT 24979-97-3P, Polytetrahydrofuran 25190-06-1P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (catalysts for manufacture and depolym. of)
 RN 24979-97-3 HCAPLUS
 CN Furan, tetrahydro-, homopolymer (9CI) (CA INDEX NAME)

CH 1

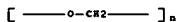
CRN 109-99-9
 CMF C4 H8 O



RN 25190-06-1 HCAPLUS
 CN Poly(oxymethylene), α-hydro-ω-hydroxy- (9CI) (CA INDEX NAME)



IT 9002-81-7P, 1,3,5-Trioxane homopolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (catalysts for manufacture of)
 RN 9002-81-7 HCAPLUS
 CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



IT 164326-83-4P 164326-90-3P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (polymerization of cyclic ethers with catalysts from)
 RN 164326-83-4 HCAPLUS

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SN10/510,476 Page 30 of 244 STIC STN SEARCH

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

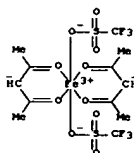
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9409055	A2	19940428	WO 1993-US9808	19931020 <--
WO 9409055	A3	19940721		
V: JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 665859	A1	19950809	EP 1993-924316	19931020 <--
EP 665859	B1	20020109		
R: DE, ES, GB, NL				
JP 08502531	T	19960319	JP 1994-510252	19931020 <--
JP 3310292	B2	20020805		
EP 1029881	A2	20000823	EP 2000-201220	19931020 <--
EP 1029881	A3	20010704		
EP 1029881	B1	20040512		
R: DE, ES, GB, NL				
ES 2166765	T3	20020501	ES 1993-924316	19931020 <--
ES 2220334	T3	20041216	ES 2000-201220	19931020 <--
US 5541346	A	19960730	US 1995-424918	19950419 <--
US 5635895	A	19970603	US 1995-424675	19950419 <--
US 5770679	A	19980623	US 1996-762813	19961209 <--
HK 1027584	A1	20050107	HK 2000-106789	20001025 <--
PRIORITY APPLN. INFO.:				
US 1992-964313 A2 19921021 <--				
US 1993-21368 A2 19930223 <--				
US 1993-93243 A2 19930716 <--				
US 1993-93119 B2 19930716 <--				
EP 1993-924316 A3 19931020 <--				
WO 1993-US9808 W 19931020 <--				
US 1993-141160 B2 19931021 <--				
US 1994-138024 B2 19940217 <--				
US 1994-283108 A3 19940729 <--				
US 1995-424675 A1 19950419 <--				

OTHER SOURCE(S): MARPAT 123:33862
 ED Entered STN: 01 Jul 1995
 AB Oxiranes, oxetanes, oxepanes, dioxolanes, trioxanes, and tetrahydrofurans are converted to their resp. polymers by contacting them with (1) certain metal perfluoroalkylsulfonates or tetraphenylborates and (2) carboxylic acids with pKa <6, acid anhydrides, or acid halides; polytetrahydrofurans are depolym. to monomeric tetrahydrofurans by contacting the polymer with a similar catalyst at 100-250°. THF was polymerized at room temperature in 56.76% yield to a polymer with weight-average mol. weight 17,100 in 15 min by Y(O3SCF3)3 in the presence of Ac2O.
 IC ICM C08G065-10
 ICS C08G065-26; C08G065-32; C07D307-08
 CC 35-3 (Chemistry of Synthetic High Polymers)
 IT 24979-97-3P, Polytetrahydrofuran 25190-06-1P
 38640-26-5P, 3-Methyltetrahydrofuran-tetrahydrofuran copolymer
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (catalysts for manufacture and depolym. of)
 IT 9002-81-7P, 1,3,5-Trioxane homopolymer 25067-64-5P, 1,3-Dioxolane homopolymer 25607-91-4P, Poly(3-methyltetrahydrofuran) 25702-20-9P, Poly(cyclohexene oxide) 26007-62-5P, 7-Oxabicyclo[2.2.1]heptane homopolymer 31762-63-3P, Oxepane homopolymer, SRU 33807-31-7P, Oxepane homopolymer 69772-75-4P, Poly(3-methyltetrahydrofuran), SRU
 RL: IMF (Industrial manufacture); PREP (Preparation)

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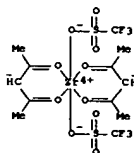
SN10/510,476 Page 32 of 244 STIC STN SEARCH

CN Ferrate(1-), bis(2,4-pentanedionato-0,0')bis(trifluoromethanesulfonato-0)-, hydrogen (9CI) (CA INDEX NAME)



● H+

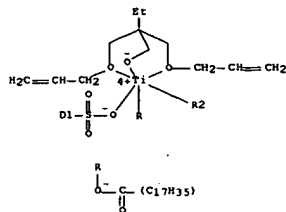
RN 164326-90-3 HCAPLUS
 CN Zirconium, bis(2,4-pentanedionato-0,0')bis(trifluoromethanesulfonato-0)- (9CI) (CA INDEX NAME)



L162 ANSWER 7 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:561644 HCAPLUS Full-text
 DOCUMENT NUMBER: 119:161644
 TITLE: Curable phenolic resin compositions for use as molds and manufacture of molds
 INVENTOR(S): Funada, Hitooshi; Yoshida, Akira; Kiuchi, Kazuhiko; Tanaka, Tutomu; Nakai, Shigeo
 PATENT ASSIGNER(S): Kao Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JXOAXF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

32

PAGE 2-A

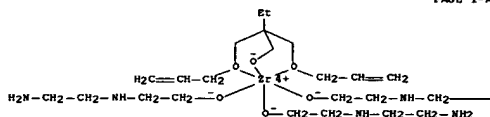


PAGE 3-A



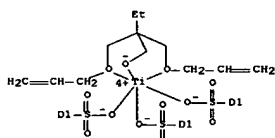
RN 103373-95-1 HCAPLUS
 CN Zirconium, tris[2-[(2-aminoethyl)amino]ethanolato-κO][2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)

PAGE 1-A

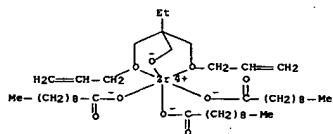


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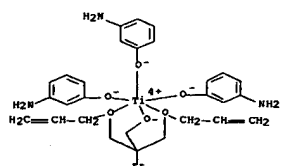
PAGE 2-A



RN 103538-14-3 HCAPLUS
 CN Zirconium, [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-κO,κO',κO''] tris(decanoato-κO)- (9CI) (CA INDEX NAME)



RN 107525-86-0 HCAPLUS
 CN Titanium, tris(3-aminophenolato-κO)[2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)



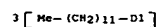
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PAGE 1-B

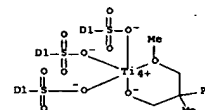


RN 103406-73-1 HCAPLUS
 CN Titanium, tris(dodecylbenzenesulfonato-κO)[β-(methoxymethyl)-β-methylbenzeneethanolato-κO,κO']- (9CI) (CA INDEX NAME)

PAGE 1-A

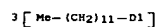


PAGE 2-A



RN 103406-74-2 HCAPLUS
 CN Titanium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO] tris(dodecylbenzenesulfonato-κO)- (9CI) (CA INDEX NAME)

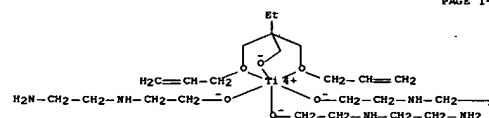
PAGE 1-A



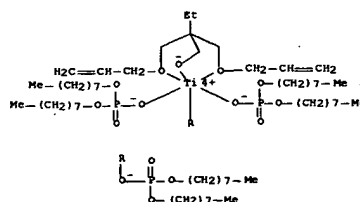
38

RN 107541-22-0 HCAPLUS
 CN Titanium, tris[2-[(2-aminoethyl)amino]ethanolato-κO][2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)

PAGE 1-A

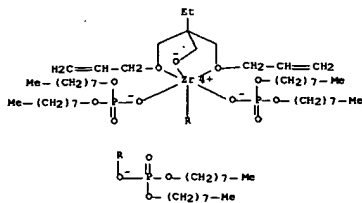


RN 110438-25-0 HCAPLUS
 CN Titanium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO] tris(dioctyl phosphato-κO')-, (OC-6-32)- (9CI) (CA INDEX NAME)

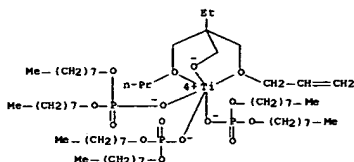


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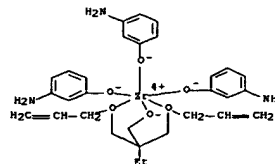
RN 111053-49-7 HCAPLUS
 CN Zirconium, [2,2-bis[(2-propenyloxy- κ O)methyl]-1-butanolato- κ O]tris(dioctyl phosphato- κ O')- (9CI) (CA INDEX NAME)



RN 111083-77-3 HCAPLUS
 CN Titanium, tris(dioctyl phosphato-O') [2-[(2-propenyloxy)methyl]-2-(propoxymethyl)-1-butanolato-O,O',O']- (9CI) (CA INDEX NAME)



RN 111083-78-4 HCAPLUS
 CN Zirconium, tris(3-aminophenolato- κ O) [2,2-bis[(2-propenyloxy- κ O)methyl]-1-butanolato- κ O]-, (OC-6-22)- (9CI) (CA INDEX NAME)



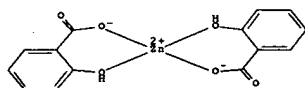
L162 ANSWER 9 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1985:505439 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 103:105439
 TITLE: Phenol-formaldehyde resin
 PATENT ASSIGNEE(S): Hodosaya Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
 CODEN: JIOKAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60099118	A	19850603	JP 1983-205878	19831104 <--
JP 05069848	B	19931001		
PRIORITY APPLN. INFO.: JP 1983-205878 19831104 <--				
ED Entered STN: 04 Oct 1985				
AB PHOH-CHO resin (I) [9003-35-4] is produced without difficulties caused by catalyst precipitation and scale formation by condensation of 100 parts of phenol with 20-70 parts of HCHO, using Zn salts of aromatic carboxylic acids as the catalyst. Thus, 100 parts 100:54.8 mixture of phenol and <u>para</u> -formaldehyde and 7.3 parts 100:2 mixture of phenol and zinc salicylate (II) [16283-36-6] were mixed at 100°, then fed at 15 L/h to a 50-L stirred reactor at 105°, from which the mixture was transferred to a 2nd reactor at 125°, and then to a third reactor at 80-90°/50 mm, in which the H ₂ O of polycondensation was evaporated along with excess phenol, and the resulting I was diluted with 1:1 isophorone and Hsol 100. No clogging of pipes or valves occurred during 330 h continuous operation, in contrast to a process using Pb naphthenate instead of II.				
IC	ICM C06G08-08			
ICA	C08G08-54			
CC	35-3 (Chemistry of Synthetic High Polymers)			
IT	<u>Polymerization catalysts</u> (zinc salts of aromatic carboxylic acids, precipitation-resistant, for continuous manufacture of phenol-formaldehyde copolymers)			
IT	16283-36-6 RL: CAT (Catalyst use); USES (Uses) (catalysts, precipitation-resistant, for continuous manufacture of phenol-formaldehyde resins)			
IT	16283-36-6 RL: CAT (Catalyst use); USES (Uses)			

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(catalysts, precipitation-resistant, for continuous manufacture of phenol-formaldehyde resins)
 RN 16283-36-6 HCAPLUS
 CN Zinc, bis(2-(hydroxy- κ O)benzoato- κ O)-, (T-4)- (9CI) (CA INDEX NAME)



L162 ANSWER 10 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1986:479892 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 105:79892
 TITLE: Neosiloxane organotitanates and organozirconates useful as coupling and polymer processing agents
 INVENTOR(S): Sugerman, Gerald; Monte, Salvatore J.
 PATENT ASSIGNEE(S): Kenrich Petrochemicals, Inc., USA
 SOURCE: Eur. Pat. Appl., 56 pp.
 CODEN: EPOXDM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 164227	A2	19851211	EP 1985-303352	19850513 <--
EP 164227	A3	19870902		
EP 164227	B1	19900816		
R: BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4600789	A	19860715	US 1984-609727	19840514 <--
US 4623738	A	19861118	US 1985-725437	19850422 <--
NO 8501845	A	19851115	NO 1985-1845	19850509 <--
NO 167393	B	19910722		
NO 167393	C	19911030		
ZA 8503532	A	19861230	ZA 1985-3532	19850509 <--
IN 170651	A1	19920502	IN 1985-DE389	19850509 <--
CA 1237140	A1	19880524	CA 1985-481428	19850513 <--
AU 8542475	A	19851121	AU 1985-42475	19850514 <--
AU 575165	B2	19880721		
JP 61022093	A	19860130	JP 1985-102527	19850514 <--
JP 03080159	B	19911224		
CN 85104987	A	19861119	CN 1985-104987	19850701 <--
CN 1005712	B	19891108		
IN 170585	A1	19920418	IN 1987-021123	19871223 <--
JP 02138285	A	19900528	JP 1989-238325	19890913 <--
JP 06000791	B	19940105		
JP 05339421	A	19931221	JP 1991-226650	19910318 <--
JP 08034745	B	19960329		
PRIORITY APPLN. INFO.: US 1984-609727 A 19840514 <--				
US 1985-725437 A 19850422 <--				

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 1984-651119	A2	19840914 <--		
IN 1985-DE389	A	19850509 <--		
ED Entered STN: 06 Sep 1986				
AB A neosiloxane compound R ₁ R ₂ CH ₂ CH ₂ OR (R = Ti or Zr; each R, R ₁ , and R ₂ = Cl-20 hydrocarbyl, optionally halo- or ether-substituted, and R ₂ may also be an oxy or ether-substituted oxy derivative; each A, B, and C = monovalent aryloxy, thioaryloxy, diester phosphate or pyrophosphate, oxyalkylamino, sulfonyl, or carbonyl; a + b + c = 3) has good thermal and solvolytic stability, is useful for compounding with polymers at high temps. (>200°), and is also useful in peroxide-cured or air-cured polymerization systems for coupling fillers to polymer and, in some cases, accelerating the polymerization. Thus, 1 mol TiCl ₄ was added to a xylene solution of 1 mol Me ₃ SiCH ₂ OH and 3 mol HOP(O)(OC ₈ H ₁₇) ₂ during 2 h at 45-60° in N and kept for an addnl. 2 h. The mixture was heated in vacuo to evaporate the solvent, giving Me ₃ SiCH ₂ OTi(OP(O)(OC ₈ H ₁₇)) ₂ (I) (87% yield). The compound had solvolysis resistance in BuOH (time required for disappearance of 50% solute at 25°) 48 h, vs. 0.1 h for Me ₂ SiCH ₂ OTi(OP(O)(OC ₈ H ₁₇)) ₂ (II). A composition comprising ABS resin 59.8, talc 40.0, and 65:35 1-silica powder mixture 0.2% was injection molded at 230° to give a molding having tensile strength 42 MPa, elongation 35%, flexural strength 78 MPa, flexural modulus 2.4 GPa, and notched Izod impact strength 0.4 kJ/m, vs. 37, 28, 70, 2.2, and 0.3, resp., for a composition prepared with II instead of I.				
IC	ICM C07F007-00			
ICS	C07F009-09; C08F008-42; C08G085-00; C08K005-06; C08K005-52; C08K005-17; C08K005-41; C08K005-09; C08K005-05; C08K009-04			
CC	37-6 (Plastics Manufacture and Processing)			
IT	Section cross-reference(s): 23, 29 Phenolic resins, uses and miscellaneous Polycarbonates Polyesters, uses and miscellaneous <u>Polyoxymethylenes, uses and miscellaneous</u> Polyoxyphenylenes Urethane polymers, uses and miscellaneous RL: USES (Uses) (titanates and zirconates containing neosiloxane groups as coupling and processing agents in)			
IT	Coupling agents <u>Crosslinking catalysts</u> Fireproofing agents Heat stabilizers <u>Polymerization catalysts</u> (titanates and zirconates, preparation and use in polymer compns.)			
IT	103171-76-2P 103171-84-2P 103194-10-1P 103245-60-9P 103245-61-0P 103304-88-6P 103352-36-9P 103372-06-1P 103373-95-1P 103406-71-9P 103406-72-0P 103406-73-1P 103406-74-2P 103432-53-7P 103432-54-8P 103455-06-7P 103455-07-8P 103455-10-3P 103475-10-1P 103475-12-3P 103538-14-3P 103850-22-2P 107525-86-0P 107541-22-0P 111083-78-4P RL: PREP (Preparation) (preparation of heat- and solvolysis-resistant, as coupling and polymer processing agents)			
IT	7440-32-60, reaction products with trimethylolpropane Pr allyl ether 1569-69-3 58443-46-9 103130-80-9 103171-78-4 103171-79-5 103171-80-8 103245-59-60, reaction product with titanium 103373-94-0 103445-10-9 103455-09-0 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with titanium salts of acids and alcs.)			
IT	103171-77-3 103407-42-7 103427-18-5 103445-09-6 103455-08-9 103475-11-2			

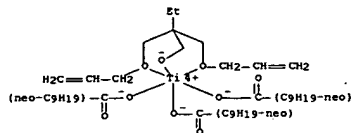
44

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with zirconium salts of acids and esters)

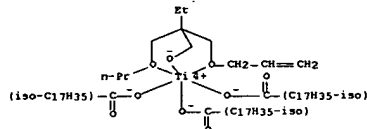
IT 103334-85-6P 103352-36-9P 103372-06-1P
103373-95-1P 103406-73-1P 103406-74-2P
103475-10-1P 103475-12-3P 103538-14-3P
103850-22-2P 107523-86-0P 107541-22-0P
111083-78-4P

RL: PREP (Preparation)
(preparation of heat- and solvolysis-resistant, as coupling and polymer processing agents)

RN 103334-85-6 HCAPLUS
CN Titanium, [2,2-bis[(2-propenyloxy- κ O)methyl]-1-butanolato- κ O]tris(neodecanoato- κ O)- (9CI) (CA INDEX NAME)

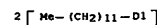


RN 103352-36-9 HCAPLUS
CN Titanium, tris(isooctadecanoato-O)[2-[(2-propenyloxy)methyl]-2-(propoxymethyl)-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)

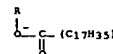
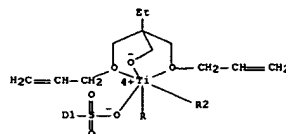


RN 103372-06-1 HCAPLUS
CN Titanium, [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']bis(dodecylbenzenesulfonato-O)(isooctadecanoato-O)- (9CI) (CA INDEX NAME)

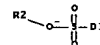
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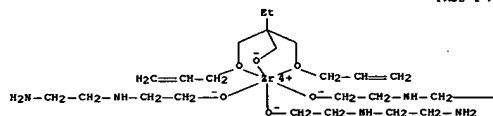


RN 103373-95-1 HCAPLUS
CN Zirconium, tris[2-[(2-aminoethyl)amino]ethanolato- κ O][2,2-bis[(2-propenyloxy- κ O)methyl]-1-butanolato- κ O]-, (OC-6-22)- (9CI) (CA INDEX NAME)

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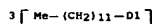
PAGE 1-A



PAGE 1-B

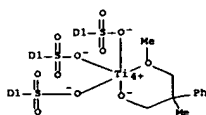
-CH2-NH2

RN 103406-73-1 HCAPLUS
CN Titanium, tris(dodecylbenzenesulfonato-O)[β-(methoxymethyl)-β-methylbenzeneethanolato-O,O']- (9CI) (CA INDEX NAME)



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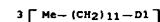
PAGE 2-A



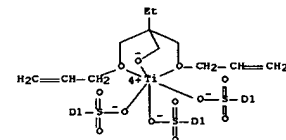
47

RN 103406-74-2 HCAPLUS
CN Titanium, [2,2-bis[(2-propenyloxy- κ O)methyl]-1-butanolato- κ O]tris(dodecylbenzenesulfonato- κ O)- (9CI) (CA INDEX NAME)

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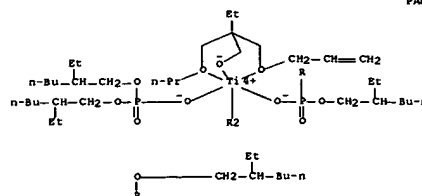


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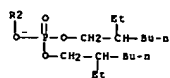


RN 103475-10-1 HCAPLUS
CN Titanium, tris[bis(2-ethylhexyl)phosphato-O'']2-[(2-propenyloxy)methyl]-2-(propoxymethyl)-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)

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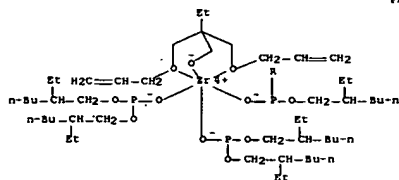


48

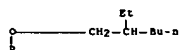


PAGE 2-A

RN 103475-12-3 HCAPLUS
 CN Zirconium, tris[bis(2-ethylhexyl) phosphito-O'''] [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)



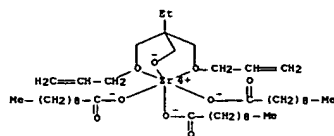
PAGE 1-A



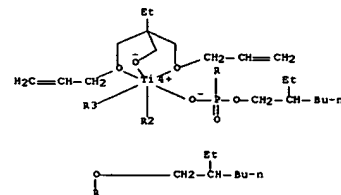
PAGE 2-A

RN 103538-14-3 HCAPLUS
 CN Zirconium, [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O''] tris(decanoato-O)- (9CI) (CA INDEX NAME)

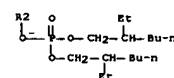
49



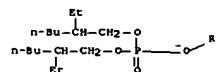
RN 103850-22-2 HCAPLUS
 CN Titanium, tris[bis(2-ethylhexyl) phosphato-O'''] [2,2-bis[(2-propenyloxy-methyl)-1-butanolato-O]- (9CI) (CA INDEX NAME)



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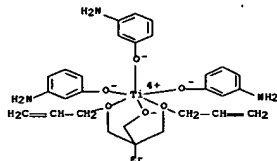


RN 107525-86-0 HCAPLUS

50

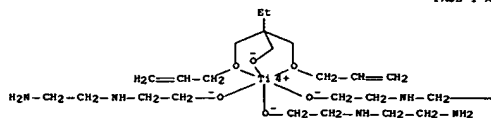
SN10/510,476 Page 51 of 244 STIC STN SEARCH

CN Titanium, tris[3-aminophenolato-O] [2,2-bis[(2-propenyloxy-methyl)-1-butanolato-O]-, (OC-6-22)- (9CI) (CA INDEX NAME)



RN 107541-22-0 HCAPLUS
 CN Titanium, tris[2-[(2-aminoethyl)amino]ethanolato-O] [2,2-bis[(2-propenyloxy-methyl)-1-butanolato-O]-, (OC-6-22)- (9CI) (CA INDEX NAME)

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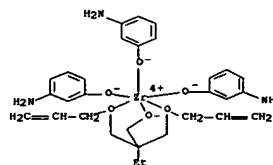
PAGE 1-B

-CH2-NH2

RN 111083-78-4 HCAPLUS
 CN Zirconium, tris[3-aminophenolato-O] [2,2-bis[(2-propenyloxy-methyl)-1-butanolato-O]-, (OC-6-22)- (9CI) (CA INDEX NAME)

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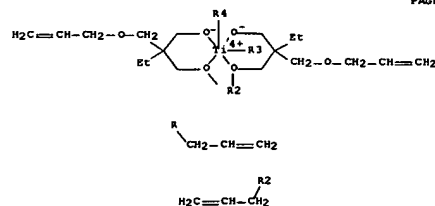


IT 68443-46-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with titanium salts of acids and alcs.)

RN 68443-46-9 HCAPLUS

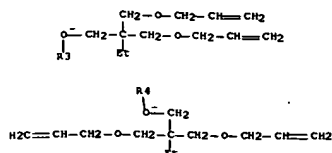
CN Titanium, bis[2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O] bis[2-[(2-propenyloxy-methyl)-2-[(2-propenyloxy)methyl]-1-butanolato-O]- (9CI) (CA INDEX NAME)

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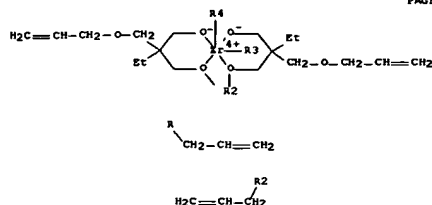
IT 103475-11-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with zirconium salts of acids and esters)

RN 103475-11-2 HCAPLUS

CN Zirconium, bis[2,2-bis[(2-propenyloxy)methyl]-1-butanolato-κO]bis[2-[(2-propenyloxy-κO)methyl]-2-[(2-propenyloxy)methyl]-1-butanolato-κO]- (9CI) (CA INDEX NAME)

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IT 109-63-7 13395-16-9

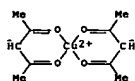
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for polymerization of formaldehyde with cyclic ethers)

IT 13395-16-9

RL: CAT (Catalyst use); USES (Uses)
(catalyst, for polymerization of formaldehyde with cyclic ethers)

RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



L162 ANSWER 12 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:545450 HCAPLUS Full-text
DOCUMENT NUMBER: 97:145450
TITLE: Manufacture of oxymethylene copolymer
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JIOKAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57083516	A	19820525	JP 1980-157692	19801111 <--
JP 58051013	B	19831114		
			JP 1980-157692	19801111 <--

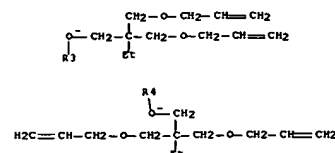
PRIORITY APPL. INFO.:

ED Entered STN: 12 May 1984

AB The title manufacture involves (1) the polymerization of HCHO in the presence of a metal chelate in an inert organic solvent, (2) copolymer of the homopolymer with a cyclic acetal in the presence of a Lewis acid, (3) termination of the copolymer with an EDTA alkali metal salt, (4) separation of the copolymer slurry into the copolymer and the inert medium, and (5) distillation of the inert medium and recycle to step 1. Thus, to the 1st reactor at 50° were fed 168.3 mL/min recycled heptane, 29.7 mL/min fresh heptane, 1 mL/min 1 mmol/L solution of bis(acetylacetonato)copper [13395-16-9] in heptane, and 10 g/min HCHO. The homopolymer (intrinsic viscosity 5.5 dL/g) was fed into 2nd reactor at 70° together with 1 mL/min 1,3,6-trioxocane (I) and 0.2 mmol/min BF₃. The copolymer mixture was fed into a mixer together with 0.2 mmol/min tetra-Na EDTA (64-02-8), and the mixture was then fed into a centrifuge to give 31.1 g/min cake (containing 10.6 g/min copolymer [28157-39-3]) and 116.1 g/min filtrate. The filtrate was distilled to give a distillate for recycle and 1.0 g/min bottom containing oligomers and some copolymer. The cake was slurried in 80 g/min 90:10 MeOH-water to give a slurry of the copolymer having intrinsic viscosity 1.55 dL/g, base stability

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L162 ANSWER 11 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:192557 HCAPLUS Full-text
DOCUMENT NUMBER: 100:192557
TITLE: Polyoxymethylene particle size control
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JIOKAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59015420	A	19840126	JP 1982-122884	19820716 <--
JP 62031726	B	19870710		
			JP 1982-122884	19820716 <--

PRIORITY APPL. INFO.:

ED Entered STN: 08 Jun 1984

AB HCHO is polymerized with cyclic ethers in the presence of polyoxymethylene, metal chelates, and Lewis acids (chelate-acid mol ratio >5 + 10-4:1) to give large copolymer particles. Thus, 20 g HCHO-1,3,6-trioxocane copolymer (I) [28157-39-3] (intrinsic viscosity (p-ClC₆H₄OH, 60°) 1.50 dL/g, base stability (weight retention after 1 h at 160° in PhCH₂OH containing 1% Bu₃N) 92%) was dried at 60° for 3 h in vacuo, heated to 80°, and fed with 6 mL/h 10-4M Cu(acac)₂ (13395-16-9), 1 mL/h 0.1M BF₃.Et₂O [109-63-7] (in toluene), 3.4 mL/h 1,3,6-trioxocane, and 62 g/h HCHO with removal of a corresponding amount of reaction mixture for 5 h to give 320 g I with intrinsic viscosity 1.53 dL/g, base stability 92.8%, and particle size distribution 250-500 μ 15.1, 177-250 μ 45.6, 125-177 μ 29.7, 88-125 μ 8.5, and <88 μ 1.1%.

IC C08G002-18

CC 35-4 (Chemistry of Synthetic High Polymers)

ST polyoxymethylene particle size; copper acetylacetonate catalyst
polym; boron trifluoride catalyst polym; catalyst polyan
polyoxymethylene; trioxocane formaldehyde
copolymer

IT Polymerization catalysts
(boron trifluoride-copper chelates, for formaldehyde with cyclic ethers)

IT Particle size
(control of, in polyoxymethylene manufacture)

IT Polyoxymethylene, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, with large particle size)

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95.5%, and I content 1.6 mol%. These values were identical with those for sample taken between the 2nd reactor and the mixer. A control prepared without tetra-Na EDTA had intrinsic viscosity 0.8 dL/g decreasing to 0.6 dL/g on storage.

IC C08G004-00; C08G002-38

CC 35-4 (Chemistry of Synthetic High Polymers)

ST formaldehyde trioxocane copolymer manuf

IT Polymerization catalysts

(bis(acetylacetonato)copper and boron trifluoride, for formaldehyde and trioxocane)

IT Polyoxymethylene, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, continuous 2-step process for)

IT Polymerization inhibitors
(tetrasodium EDTA, in formaldehyde-trioxocane copolymer manufacture)

IT Polymerization
(continuous, 2-step, of formaldehyde and trioxocane)

IT 13395-16-9

RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

IT 7637-07-2, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde and trioxocane)

IT 64-02-8

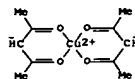
RL: USES (Uses)
(polymerization inhibitors, in manufacture of formaldehyde trioxocane copolymer)

IT 13395-16-9

RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



L162 ANSWER 13 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:616956 HCAPLUS Full-text
DOCUMENT NUMBER: 97:216956
TITLE: Stabilization of polyoxymethylene
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JIOKAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

56

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57055916	A	19820403	JP 1980-129145	19800919 <--
JP 62013975	B	19870330		

PRIORITY APPLN. INFO.:
 ED Entered STN: 12 May 1984

AB Polyoxymethylene having number-average mol. weight 210,000 is treated with alkylene oxides or cyclic formals in the presence of complexes of Lewis acids with cyclic ethers to stabilize the polymer toward heat. Thus, 50 g hydroxy-terminated poly(oxymethylene) having number-average mol. t. 61,500 and reduced viscosity (60°, 0.5g/dl 1:1 p-ClCH₄OH-C₂H₅Cl₄) 3.08, 500 ml PhMe, 4 mg methylal, and 3.8 g oxirane [75-21-8] were placed in a flask and warmed 65 min at 60° in the presence of BF₃-oxirane complex (82991-20-6) (prepared from 85 mg BF₃·Et₂O and oxirane) to give 49 g polymer having mol. weight 34,200, reduced viscosity 1.76, and weight retention after heating 50 min in vacuo at 222° 98.81.

IC C08G002-34

CC 35-8 (Chemistry of Synthetic High Polymers)

ST polyoxymethylene stabilization; ethylene oxide stabilization polyoxymethylene; fluoroborane oxirane complex catalyst; boron ether complex catalyst

IT Catalysts and Catalysts (Lewis acid complexes with cyclic ethers, for stabilization of polyoxymethylenes with alkylene oxides or cyclic formals)

IT Epoxides
 RL: USES (Uses) (stabilization by, of polyoxymethylene)

IT Polyoxymethylenes, preparation
 RL: PREP (Preparation) (stabilization of, by reaction with alkylene oxides or cyclic formals, catalysts for)

IT Ethers, compounds
 RL: USES (Uses) (cyclic, complexes with Lewis acids, catalysts, for stabilization of polyoxymethylenes with alkylene oxides or cyclic formals)

IT Acetals
 RL: USES (Uses) (formals, cyclic, stabilization by, of polyoxymethylene)

IT 306-70-7 462-34-0 15283-71-3 27179-87-9 82985-10-2 82985-11-3 82985-12-4 82991-21-7 82991-22-8 82991-23-9 82991-24-0 83642-96-0

RL: CAT (Catalyst use); USES (Uses) (catalysts, for stabilization of polyoxymethylene with cyclic ethers or formals)

IT 75-21-8, uses and miscellaneous 75-56-9, uses and miscellaneous 96-09-3 286-20-4 294-59-7 505-65-7 558-30-5 592-90-5 646-06-0 6572-90-3

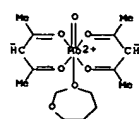
RL: USES (Uses) (stabilization by, of poly(oxymethylene))

IT 82991-22-8
 RL: CAT (Catalyst use); USES (Uses) (catalysts, for stabilization of polyoxymethylene with cyclic ethers or formals)

RN 82991-22-8 HCAPLUS

CN Molybdenum, (1,3-dioxepane-O1)oxobis(2,4-pentanedionato-O,O')- (9CI) (CA INDEX NAME)

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L162 ANSWER 14 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1981:498600 HCAPLUS Full-text
 DOCUMENT NUMBER: 95:98600
 TITLE: Polymerizing formaldehyde
 INVENTOR(S): Kono, Hisashi; Terai, Kenji; Hisadomi, Masaki; Uemura, Katsumi; Ohta, Sumio; Yamamoto, Yoshiichi
 Ube Industries, Ltd., Japan
 PATENT ASSIGNEE(S): Eur. Pat. Appl., 24 pp.
 SOURCE: CODEN: EPOXIN
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 28499	A1	19810513	EP 1980-303839	19801029 <--
EP 28499	B1	19840201		
R: BE, DE, FR, GB, IT				
JP 56067323	A	19810606	JP 1979-142828	19791106 <--
JP 63021607	B	19880509		
JP 57008216	A	19820116	JP 1980-82866	19800620 <--
JP 59017128	B	19840419		
US 4352923	A	19821005	US 1980-204353	19801105 <--
			JP 1979-142828	A 19791106 <--
			JP 1980-82866	A 19800620 <--

PRIORITY APPLN. INFO.:
 ED Entered STN: 12 May 1984

AB Undesirable deposition of polyoxymethylenes (I) of the walls of reactors in the slurry polymerization of HCHO is minimized without any adverse effect on polymerization activity by using catalysts consisting of metal chelates adsorbed on I. Thus, bis(acetylacetonato)copper (II) (13395-16-9) was contacted with I in n-heptane (III) in the presence of HCHO so the amount of II adsorbed on I was 7.6 + 10⁻⁶ mol/g I and the slurry was diluted with III to give a catalyst slurry containing 5 + 10⁻⁶ mol II/L III. HCHO (g) at 1 g/min and above catalyst slurry at 50 ml/min were fed to a polymerization reactor and the HCHO was polymerized for 24 h at 40° while continuously withdrawing the I product in the form of a slurry. A 100% yield of I with intrinsic viscosity 5.4 dl/g was obtained. The amount of I deposited on the reactor walls was 1.3g. The catalyst could also contain an alkylsalicylic acid polyvalent metal salt or dialkyl sulfosuccinate polyvalent metal salts and a polymeric electrolyte such as an alkyl methacrylate-2-methyl-5-vinylpyridine copolymer.

IC C08G002-08; C08G002-06

CC 35-3 (Synthetic High Polymers)

ST polyoxymethylene manuf catalyst; formaldehyde slurry polymer catalyst; chelate polymer catalyst

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formaldehyde; copper chelate polym catalyst; salicylate chelate polymer formaldehyde; sulfosuccinate polymer formaldehyde

IT Polyoxymethylenes, preparation
 RL: IMP (Industrial manufacture); PREP (Preparation) (manufacture of, minimization of reactor fouling in, catalyst for)

IT Polymerization catalysts
 (metal chelates adsorbed on polyoxymethylenes, for formaldehyde)

IT Scale (coating)
 (prevention of, in reactors for slurry polymerization of formaldehyde)

IT Polymerization
 (slurry, of formaldehyde, minimization of reactor fouling in)

IT 13395-16-9 36799-66-3
 RL: CAT (Catalyst use); USES (Uses) (catalysts, adsorbed on polyoxymethylenes, for polymerization of formaldehyde with minimal reactor fouling)

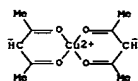
IT 69-72-7D, alkyl derivs., polyvalent metal chelates 128-49-4
 RL: CAT (Catalyst use); USES (Uses) (catalysts, for slurry polymerization of formaldehyde with minimal reactor fouling)

IT 79-41-4D, alkyl esters, polymers with methylvinylpyridine 140-76-1D, polymers with alkyl methacrylates
 RL: USES (Uses) (in slurry polymerization of formaldehyde with reduced reactor fouling)

IT 13395-16-9 36799-66-3
 RL: CAT (Catalyst use); USES (Uses) (catalysts, adsorbed on polyoxymethylenes, for polymerization of formaldehyde with minimal reactor fouling)

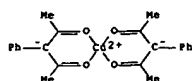
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 36799-66-3 HCAPLUS

CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



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L162 ANSWER 15 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1981:462971 HCAPLUS Full-text
 DOCUMENT NUMBER: 95:62971
 TITLE: Polymerizing formaldehyde
 INVENTOR(S): Ishii, Takami; Takikawa, Naohisa; Tokunaga, Kiyooki; Ogawa, Nobuhiko
 Ube Industries, Ltd., Japan
 PATENT ASSIGNEE(S): Eur. Pat. Appl., 22 pp.
 SOURCE: CODEN: EPOXIN
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 26047	A1	19810401	EP 1980-302888	19800820 <--
EP 26047	B1	19840404		
R: BE, DE, FR, GB, IT, NL				
JP 56030421	A	19810327	JP 1979-106639	19790823 <--
JP 61053365	B	19861117		
JP 57021414	A	19820204	JP 1980-95693	19800715 <--
JP 58048562	B	19831029		
US 4332930	A	19820601	US 1980-180306	19800822 <--
			JP 1979-106639	A 19790823 <--
			JP 1980-95693	A 19800715 <--

PRIORITY APPLN. INFO.:
 ED Entered STN: 12 May 1984

AB Reactor fouling by polyoxymethylene (I) [9002-81-7] is minimized in the slurry polymerization of HCHO by polymerizing in the presence of a catalyst and 21 polyvalent metal salt of alkylsalicylic acids and sulfosuccinic acid dialkyl esters. Thus, a heptane solution containing 5 + 10⁻⁶ mol/L bis(acetylacetonato)copper [13395-16-9] and 3 mg/L solution consisting of Cr(III) Cl₄-18 alkylsalicylate 20, calcium bis(2-ethylhexyl sulfosuccinate) (128-49-4) 10, of 2-methyl-5-vinylpyridine-Cl₇-alkyl methacrylate copolymer (6), and xylene 254 was pumped at 20 ml/min into a polymerization reactor along with 1 g/min HCHO(g). Polymerization was conducted at 50° for 24 h while continuously withdrawing a slurry of I so the liquid level was kept constant. The yield of I was approx.100% based on the HCHO; the intrinsic viscosity of the polymer was 5.5 dl/g. The weight of I deposited on the inner walls of the reactor and stirrer was 0.32 g.

IC C08G002-08; C08G002-06

CC 35-3 (Synthetic High Polymers)

ST formaldehyde polymer prevention reactor fouling; alkylsalicylate metal salt polymer formaldehyde; alkyl sulfosuccinate metal salt; metal salt carbonylate formaldehyde polymer; salicylate metal salt polymer formaldehyde

IT Polymerization
 (of formaldehyde, reduction of reactor fouling in, by polyvalent metal salts of alkylsalicylic acids and alkylsulfosuccinates)

IT 102-82-9 557-20-0 13395-16-9 21679-46-9 36799-66-3 78448-18-7
 RL: CAT (Catalyst use); USES (Uses) (catalysts, formaldehyde polymerization in presence of polyvalent metal salts of alkylsalicylic acids and alkylsulfosuccinates and, for reactor fouling prevention)

IT 69-72-7D, alkyl derivs., polyvalent metal salts 128-49-4 50764-87-9

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RL: USES (Uses)

(formaldehyde polymerization in presence of, for reactor fouling prevention)

IT 79-41-40, alkyl esters, polymers with methylvinylpyridine 140-76-1D, polymers with alkyl methacrylates 9002-92-0 9004-98-2 9005-00-9 9016-45-9 24938-91-8

RL: USES (Uses)

(formaldehyde polymerization in presence of, reactor fouling inhibition in, by polyvalent metal salts of alkyl salicylic acids and dialkyl sulfosuccinates)

IT 9002-81-7P

RL: IMF (Industrial manufacture); PREP (Preparation) (manufacture of, reactor fouling inhibition in, by metal salts of alkylsalicylic acids and dialkyl sulfosuccinates)

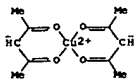
IT 13395-16-9 21679-46-9 36799-66-3

RL: CAT (Catalyst use); USES (Uses)

(catalysts, formaldehyde polymerization in presence of polyvalent metal salts of alkylsalicylic acids and dialkylsulfosuccinates and, for reactor fouling prevention)

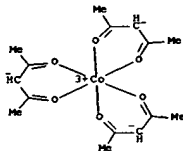
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS

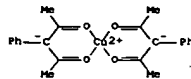
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 36799-66-3 HCAPLUS

CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

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IT 9002-92-0 9004-98-2 9005-00-9

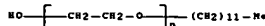
9016-45-9 24938-91-8

RL: USES (Uses)

(formaldehyde polymerization in presence of, reactor fouling inhibition in, by polyvalent metal salts of alkyl salicylic acids and dialkyl sulfosuccinates)

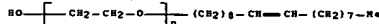
RN 9002-92-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-dodecyl-ω-hydroxy- (9CI) (CA INDEX NAME)



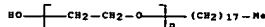
RN 9004-98-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecenyl-ω-hydroxy- (9CI) (CA INDEX NAME)



RN 9005-00-9 HCAPLUS

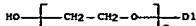
CN Poly(oxy-1,2-ethanediyl), α-octadecyl-ω-hydroxy- (9CI) (CA INDEX NAME)



RN 9016-45-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy- (9CI) (CA INDEX NAME)

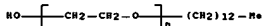
62



D1-(CH2)8-Me

RN 24938-91-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-tridecyl-ω-hydroxy- (9CI) (CA INDEX NAME)

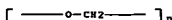


IT 9002-81-7P

RL: IMF (Industrial manufacture); PREP (Preparation) (manufacture of, reactor fouling inhibition in, by metal salts of alkylsalicylic acids and dialkyl sulfosuccinates)

RN 9002-81-7 HCAPLUS

CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)



L162 ANSWER 16 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:533436 HCAPLUS Full-text

DOCUMENT NUMBER: 95:133436

TITLE: Polymerization of formaldehyde and the physical properties of the polymerization products. I

AUTHOR(S): Ishida, Shinichi

CORPORATE SOURCE: Asahi Chem. Ind. Co., Tokyo, Japan

SOURCE: Journal of Applied Polymer Science (1981),

26(8), 2743-50

CODEN: JAPNAB; ISSN: 0021-8995

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Polymerization of HCHO carried out by a solution method and a gas supply method using various initiators at various temps. and characteristics of the polyoxymethylenes obtained are discussed. In both modes of polymerization, polyoxymethylenes with adequate number-average mol. weight and small polydispersity were obtained. The Izod impact strength of the polymers increased with increasing number average mol. weight at polydispersities in

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the range 2.3-3.5, and Dart impact strength increased with decreasing polydispersity.

CC 35-4 (Synthetic High Polymers)

ST formaldehyde polymer catalytic;

polyoxymethylene property; toughness mol wt

polyoxymethylene; polydispersity toughness

polyoxymethylene

IT Polymerization catalysts

(for solution and gas-phase polymerization of formaldehyde)

IT Polyoxymethylene, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, catalysts for)

IT Polymerization

(gas-phase, of formaldehyde)

IT Polymerization

(solution, of formaldehyde)

IT 77-58-7 121-44-8, uses and miscellaneous 7646-78-8, uses and

miscellaneous 10538-59-5 13308-45-7 21679-46-9

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of formaldehyde)

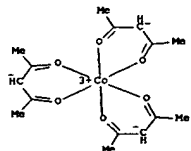
IT 21679-46-9

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of formaldehyde)

RN 21679-46-9 HCAPLUS

CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



L162 ANSWER 17 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1975:411214 HCAPLUS Full-text

DOCUMENT NUMBER: 83:11214

TITLE: Etherification of polyacetals

PATENT ASSIGNEE(S): Societa Italiana Resine S.p.A., Italy

SOURCE: Fr. Demande, 13 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

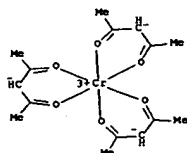
LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

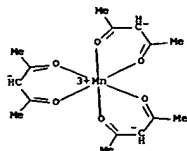
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2233344	A1	19750110	FR 1974-20578	19740613 <-

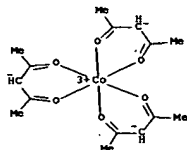
64



IT 14284-89-0 21679-46-9
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, containing anthrone derivs., for degradation of plastics,
 by light)
 RN 14284-89-0 HCAPLUS
 CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
 CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)

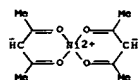


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mmole BF₃·Et₂O (109-63-7) in 47 ml PhMe was introduced and the temperature was increased to 60 deg. and maintained 100 min to give 245 g of a copolymer m. 165 deg. with base stability 98%, intrinsic viscosity 1.51, and thermal degradation constant 0.01%. A copolymer prepared by an insertion reaction in a polyformaldehyde using only a Lewis acid catalyst had m.p. 163 deg., base stability 75%, and intrinsic viscosity 1.30.

IC C08G
 INCL 260067000FP
 CC 35-4 (Synthetic High Polymers)
 ST formaldehyde cyclic ether copolym; copolym
 catalyst formaldehyde; Lewis acid formaldehyde
 copolym; metal chelate formaldehyde copolym
 IT Polymerization catalysts
 (Lewis acid-metal chelate, for formaldehyde with cyclic
 ethers)
 IT 94-93-90, Phenol, 2,2'-[1,2-ethanediylbis(nitrilomethylidene)]bis-, cobalt
 complexes 3264-82-2 10380-28-6 13395-16-9
 13478-93-0 13963-57-0 14024-18-1 14024-56-7
 14781-49-8 17499-48-8 21679-46-9 27821-98-3
 36799-66-3 51989-93-6 52063-95-3
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, Lewis acid and, for polymerization of
 formaldehyde with cyclic ethers)
 IT 109-63-7 368-39-8 372-44-1 462-34-0 7550-45-0, uses and
 miscellaneous 7637-07-2, uses and miscellaneous 7646-78-8
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, metal chelates and, for polymerization of
 formaldehyde with cyclic ethers)
 IT 50-00-0, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymerization of, with cyclic ethers, Lewis acid-metal chelate
 catalysts for)
 IT 75-56-9, reactions 646-06-0 1779-19-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymerization of, with formaldehyde, Lewis acid-metal
 chelate catalysts for)
 IT 3264-82-2 13395-16-9 14024-18-1
 14781-49-8 21679-46-9 36799-66-3
 51989-93-6 52063-95-3
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, Lewis acid and, for polymerization of
 formaldehyde with cyclic ethers)
 RN 3264-82-2 HCAPLUS
 CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA
 INDEX NAME)



RN 13395-16-9 HCAPLUS
 CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA
 INDEX NAME)

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IT 24969-25-3
 RL: FRP (Properties)
 (degradation of, by light, catalyst for)
 RN 24969-25-3 HCAPLUS
 CN 1,3,5-Trioxane, polymer with oxirane (9CI) (CA INDEX NAME)
 CM 1
 CRN 110-88-3
 CMF C3 H6 O3



CM 2
 CRN 75-21-8
 CMF C2 H4 O



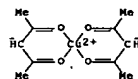
L162 ANSWER 19 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1974:450334 HCAPLUS Full-text
 DOCUMENT NUMBER: 81:50334
 TITLE: Formaldehyde copolymer
 INVENTOR(S): Ishii, Takami; Takikawa, Naohisa; Inuizawa, Yoshihiro
 PATENT ASSIGNER(S): Ube Industries, Ltd.
 SOURCE: U.S., 7 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3803094	A	19740409	US 1972-270930	19720712 <--
PRIORITY AFFILIATION INFO:			US 1972-270930	A 19720712 <--
ED	Entered STN:	12 May 1984		
AB	A high mol. weight formaldehyde-cyclic ether copolymer with improved thermal stability was obtained by polymerization in the presence of a Lewis acid and metal chelate catalyst mixture. Thus, 125 g 1,3-dioxolane [646-06-0] were charged to a reactor with 2.5 l. PhMe and cooled to -78 deg.. Gaseous HCHO [50-00-0] (250 g) was introduced and the temperature was raised to 0 deg.. A reaction mixture of 0.25 mmole tris(acetylacetonate)cobalt [21679-46-9] and 2.5			

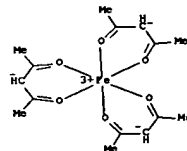
70

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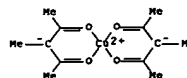
INDEX NAME)



RN 14024-18-1 HCAPLUS
 CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA
 INDEX NAME)

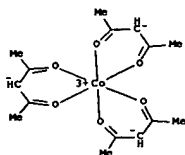


RN 14781-49-8 HCAPLUS
 CN Copper, bis(3-methyl-2,4-pentanedionato-κO,κO')-, (9CI) (CA
 INDEX NAME)

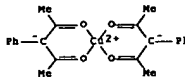


RN 21679-46-9 HCAPLUS
 CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)

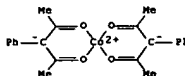
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RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato- κ O, κ O')-, (SP-4-1)-
(9CI) (CA INDEX NAME)



RN 51989-93-6 HCAPLUS
CN Cobalt, bis(3-phenyl-2,4-pentanedionato-O, κ O')-, (T-4)- (9CI) (CA INDEX NAME)



RN 52063-95-3 HCAPLUS
CN Zinc, bis[3-(methoxyphenyl)-2,4-pentanedionato- κ O, κ O']-,
(T-4)- (9CI) (CA INDEX NAME)

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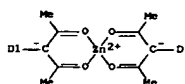
SN10/510,476 Page 75 of 244 STIC STN SEARCH

stability 98%, intrinsic viscosity 1.51, and thermal degradation rate constant 0.01/min was obtained.

IC C08G: B01J
CC 35-4 (Synthetic High Polymers)
ST formaldehyde copolym catalyst; Lewis acid catalyst
polym; metal chelate catalyst polym; cobalt acetylacetonate catalyst
polym; boron fluoride etherate catalyst
IT Polymerization catalysts
(Lewis acid-metal chelate, for formaldehyde)
IT 109-63-7 368-39-8 372-44-1 462-34-0 591-00-4 7646-78-8
RL: CAT (Catalyst use); USES (Uses)
(catalyst, metal chelate and, for copolym. of
formaldehyde)
IT 52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, Lewis acid and, for copolym. of
formaldehyde)
IT 10380-28-6 13478-93-8 13963-57-0 14024-56-7 36407-49-5
36799-66-3 51989-93-6
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for
copolymerization of formaldehyde)
IT 3264-82-2 13395-16-9 14024-18-1 14167-18-1
17499-48-8 21679-46-9 27821-98-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for
copolym. of formaldehyde)
IT 52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, Lewis acid and, for copolym. of
formaldehyde)
RN 52063-95-3 HCAPLUS
CN Zinc, bis[3-(methoxyphenyl)-2,4-pentanedionato- κ O, κ O']-,
(T-4)- (9CI) (CA INDEX NAME)



2 (D1-O-Me)

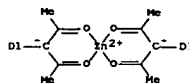


IT 36407-49-5 36799-66-3 51989-93-6
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for
copolymerization of formaldehyde)
RN 36407-49-5 HCAPLUS

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2 (D1-O-Me)



IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with cyclic ethers, Lewis acid-metal chelate
catalysts for)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

H2 Chem 0

L162 ANSWER 20 of 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:17497 HCAPLUS Full-text
DOCUMENT NUMBER: 82:17497
TITLE: Copolymers of formaldehyde
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Fr. Demande, 24 pp.
CODEN: FRUKBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

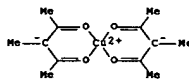
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2193045	A1	19740215	FR 1972-26046	19720719 <--
FR 2193045	B1	19741227		

PRIORITY APPL. INFO.:
ED Entered STN: 12 May 1984
AB Catalyst mixts. containing a metal chelate and a Lewis acid for the copolym.
of HCHO with cyclic ether gave copolymers with medium mol. weight values and
improved heat stability. HCHO gas (250 g), obtained by the thermal
decomposition of a polyoxymethylene, was introduced to 2.5 l. PHMe containing
125 g dioxolane at -78°. The solution temperature was increased to 0° and a
mixture of 0.25 mmole tris(acetylacetonato)cobalt [21679-46-9] and 2.5 mmole
BF₃·OEt₂ [109-63-7] in 47 ml PHMe was added. After copolym. at 60° 245 g of
a formaldehyde-1,3-dioxolane copolymer [25765-51-9] (n. 165°) with a basic

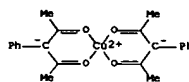
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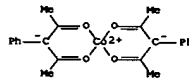
CN Copper, bis(3-methyl-2,4-pentanedionato-O, κ O')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato- κ O, κ O')-, (SP-4-1)-
(9CI) (CA INDEX NAME)



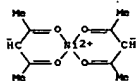
RN 51989-93-6 HCAPLUS
CN Cobalt, bis(3-phenyl-2,4-pentanedionato-O, κ O')-, (T-4)- (9CI) (CA INDEX NAME)



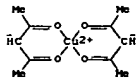
IT 3264-82-2 13395-16-9 14024-18-1
21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for
copolym. of formaldehyde)

RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato- κ O, κ O')-, (SP-4-1)- (9CI) (CA INDEX NAME)

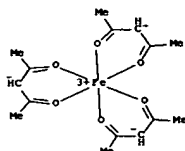
76



RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-kO,kO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-kO,kO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

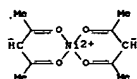


RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-kO,kO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

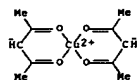
77

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(catalyst, containing Lewis acid, for polyoxymethylene manufacture)
IT 13963-57-0 14024-56-7 14781-49-8 17499-48-8
36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing Lewis acids, for polyoxymethylene manufacture)
IT 108-24-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing metal chelates and Lewis acid, for polyoxymethylene manufacture) 462-34-0 7550-45-0, uses and miscellaneous 7637-07-2, uses and miscellaneous 7646-78-8
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing metal chelates, for polyoxymethylene manufacture)
IT 3264-82-2 13395-16-9 14024-18-1
21679-46-9 31381-69-8 51989-93-6
52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalyst, containing Lewis acid, for polyoxymethylene manufacture)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-kO,kO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

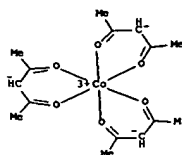


RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-kO,kO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-kO,kO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

79



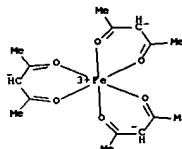
L162 ANSWER 21 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:438130 HCAPLUS Full-text
DOCUMENT NUMBER: 81:38130
TITLE: Formaldehyde copolymers
INVENTOR(S): Ushii, Takami; Takikawa, Naoshi; Inuzawa, Yoshihiro
PATENT ASSIGNER(S): Ube Industries, Ltd.
SOURCE: Ger. Offen., 29 pp.
CODEN: GWOXEX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2231704	A1	19740131	DE 1972-2231704	19720628 <--
DE 2231704	B2	19740516		
DE 2231704	C3	19750306		

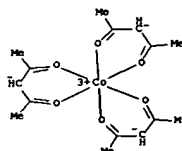
PRIORITY APPLN. INFO.: DE 1972-2231704 A 19720628 <--
ED Entered STN: 12 May 1984
AB Polyoxymethylenes having improved thermal stability are prepared by polymerization of HCHO with cyclic ethers in the presence of metal chelate-Lewis acid catalysts. Thus, stirring 250 g HCHO, 125 g 1,3-dioxolane, 0.25 mmole tris(acetylacetonato)cobalt (I) [21679-46-9], 2.5 mmole boron trifluoride etherate [109-63-7], and 2.5 l. PhMe 100 min at 60.deg. gives 245 g 1,3-dioxolane-formaldehyde polymer [25765-51-9], intrinsic viscosity (p-ClCH₂OH, 60.deg.) 1.51, decomposition in 2 hr at 160.deg. 2%, degradation rate at 222.deg. 0.01%/min, compared with 0.43, 25, and 0.28, resp., in the absence of I.
IC C08G
CC 35-4 (Synthetic High Polymers)
ST polyoxymethylene polymn catalyst: acetylacetonate cobalt complex; cobalt complex catalyst: boron trifluoride catalyst; heat resistance polyoxymethylenes, preparation
IT RL: IMF (Industrial manufacture); PREP (Preparation) (manufacture of heat-resistant, catalysts for)
IT Polymerisation catalysts (metal chelate-Lewis acids, for polyoxymethylene manufacture)
IT 3264-82-2 10380-28-6 13395-16-9 14024-18-1
14592-59-7 21679-46-9 27821-98-3 31381-69-8
51989-93-6 52063-95-3
RL: CAT (Catalyst use); USES (Uses)

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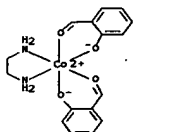
SN10/510,476 Page 80 of 244 STIC STN SEARCH



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-kO,kO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

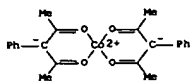


RN 31381-69-8 HCAPLUS
CN Cobalt, (1,2-ethanediamine-N,N')bis(2-hydroxybenzaldehyde-O,O')- (9CI) (CA INDEX NAME)



RN 51989-93-6 HCAPLUS
CN Cobalt, bis(3-phenyl-2,4-pentanedionato-O,O')-, (T-4)- (9CI) (CA INDEX NAME)

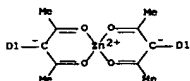
80



RN 52063-95-3 HCAPLUS
CN Zinc, bis[3-(methoxyphenyl)-2,4-pentanedionato-κO,κO']-, (T-4)- (9CI) (CA INDEX NAME)

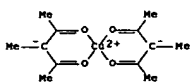


2 (D1-O-Me)



IT 14781-49-8 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing Lewis acids, for polyoxymethylene manufacture)

RN 14781-49-8 HCAPLUS
CN Copper, bis[3-methyl-2,4-pentanedionato-κO,κO']-, (9CI) (CA INDEX NAME)



RN 36799-66-3 HCAPLUS
CN Copper, bis[3-phenyl-2,4-pentanedionato-κO,κO']-, (SP-4-1)- (9CI) (CA INDEX NAME)

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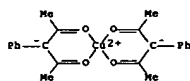
SN10/510,476 Page 83 of 244 STIC STN SEARCH

(catalysts, for polymerization of formaldehyde)

IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)

IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

RN 36799-66-3 HCAPLUS
CN Copper, bis[3-phenyl-2,4-pentanedionato-κO,κO']-, (SP-4-1)- (9CI) (CA INDEX NAME)



IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)

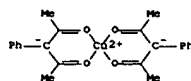
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

RZ C=O

L162 ANSWER 23 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:478230 HCAPLUS Full-text
DOCUMENT NUMBER: 79:78230
TITLE: Catalytic manufacture of 1,5,9-cyclododecatriene
INVENTOR(S): Morikawa, Hiroyuki; Tamura, Noriyoshi; Sato, Takahiro; Yamagishi, Kazuo; Nagai, Takeo
PATENT ASSIGNEE(S): Mitsubishi Petrochemical Co., Ltd.
SOURCE: Ger. Offen., 57 pp.
CODEN: GWXXEX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2261002	A1	19730712		19721213 <--
JP 48067249	A	19730913	JP 1971-101064	19711215 <--
JP 50037185	B	19751201		
JP 48067250	A	19730913	JP 1971-101065	19711215 <--
JP 50037186	B	19751201		
JP 49035359	A	19740401	JP 1972-78138	19720804 <--
JP 55033690	B	19800902		
US 3843738	A	19741022	US 1972-314228	19721211 <--

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L162 ANSWER 22 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:60407 HCAPLUS Full-text
DOCUMENT NUMBER: 80:60407
TITLE: Polymerizing formaldehyde
INVENTOR(S): Oshii, Takami; Inui, Yoshiro; Kumahara, Hiromi
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JROOAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48047592	A	19730706	JP 1971-82124	19711019 <--
JP 49035839	B	19740926		
US 3804808	A	19740416	US 1972-256742	19720525 <--
GB 1336828	A	19731114	GB 1972-25131	19720530 <--
DE 2226620	A1	19730503	DE 1972-2226620	19720531 <--
DE 2226620	B2	19740207		
DE 2226620	C3	19740905		
NL 7210220	A	19730425	NL 1972-10220	19720725 <--
IT 964068	B	19740121	IT 1972-28285	19720818 <--
FR 2156719	A1	19730601	FR 1972-36172	19721012 <--
PRIORITY APPL. INFO.:			JP 1971-82124	A 19711019 <--

ED Entered STN: 12 May 1984
AB Practically anhydrous HCHO was polymerized in inert solvents containing 1 .tim. 10-9-1 .tim. 10-7 mole (to 1 mole HCHO) bis[3-phenylacetylacetonate]copper (I) [15277-28-8]. Separation of the catalyst after the polymerization was unnecessary in this method. Thus, 100 g HCHO gas obtained by heat decomposition of .alpha. -poly(oxymethylene) was blown into 1300 g PhMe at -78.deg., polymerized for 60 min at -18.deg. in contact with 2 ml PhMe solution containing 1 .tim. 10-7 mole I, and the resulting slurry mixed (700 g) 10 min at 110.deg. with 200 g Ac2O, 0.1 g BF3 and 5 ml Bu3M to give 46 g poly(formaldehyde) [9002-81-7] with 0.08 1/min K222 value.

INCL 26(5)81
CC 35-4 (Synthetic High Polymers)
ST polyformaldehyde; copper phenylacetylacetonate complex catalyst; phenylacetylacetonate copper complex; formaldehyde polymers; polyoxymethylene
IT Polymerization catalysts
(bis[phenylacetylacetonate] copper, for formaldehyde)
IT Polyoxymethylene, preparation
RL: IMP (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2163712	A1	19730727	FR 1972-44838	19721215 <--
GB 1439686	A	19751224	GB 1972-58002	19721215 <--
FR 2187741	A1	19740118	FR 1973-27869	19730730 <--
FR 2187742	A1	19740118	FR 1973-27870	19730730 <--
PRIORITY APPL. INFO.:			JP 1971-101064	A 19711215 <--
			JP 1971-101065	A 19711215 <--
			JP 1972-78138	A 19720804 <--

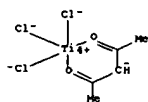
ED Entered STN: 12 May 1984
AB The title compound (I) was prepared in .apprx.65-85% yield by cyclotrimerization of CH2=CHCH=CH2 (II) in the presence of a catalyst composed of a Ti compound: BuH, BuCl or BuH2 derivative or an aromatic 5-membered heterocycle or a cyclic formal of its 5 analog; a S compound SnR2 (n = 1,2; R = hydrocarbyl or hydrocarboxyl) and/or a P compound PR1R2Xm (R,R1,R2 = the same or different alkyl or alkenyl groups or H, or R,R1 = alkylene; X = O or halogen; m = 0 or 1); and an Al compound AlR2Cl (R = alkyl, alkoxy, aryl or arylalkoxy). Thus, cyclotrimerization of 60 g II in 100 ml MePh in the presence of 0.5, 0.5, 0.12, 0.13 and 3.0 mmoles, resp., of BuOTiCl3, s-trioxane, Ph2SO, Ph3PO, and Et2AlCl gave 85.1% I.

IC C07C
CC 24-6 (Alicyclic Compounds)
Section cross-reference(s): 29, 67
IT Polyoxymethylene, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for cyclotrimerization of butadiene)
IT Trimerization catalysts
(cyclo-, titanium compound-aluminum compound-benzoic acid derivative (or aromatic 5-membered heterocycle or cyclic formal)-organosulfur compound and/or organophosphorus compound as, for butadiene)

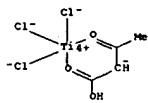
IT 67-68-5, uses and miscellaneous 67-71-0 78-40-0 88-14-2 89-98-5
90-02-8, uses and miscellaneous 96-10-6, uses and miscellaneous
98-01-1, uses and miscellaneous 98-02-2 99-61-6 100-07-2 100-10-7
100-52-7, uses and miscellaneous 104-88-1 108-62-3 109-87-5
109-99-9, uses and miscellaneous 110-88-3, uses and miscellaneous
115-86-6 120-14-9 121-33-5 122-01-0 122-03-2 123-63-7 123-91-1
126-33-0 126-73-8, uses and miscellaneous 291-21-4 293-30-1
503-30-0 527-69-5 527-85-5 534-22-5 539-47-9 597-50-2 616-42-2
617-89-0 623-27-8 626-85-7 634-97-9 646-06-0 791-28-6 814-49-3
974-42-0 945-51-7 1003-29-8 1072-83-9 1079-66-9 1193-10-8
1600-44-8 1779-25-5 2168-93-6 2373-00-4 2524-64-3 2892-89-9
3112-68-3 3466-00-0 3582-00-1 4200-76-4 4403-68-3 4544-86-9
5981-06-6 6975-60-6 7550-45-0, uses and miscellaneous 13780-39-7
15152-78-0 30860-71-0 34839-49-1 37942-93-1 42587-83-7
42724-49-2

RL: CAT (Catalyst use); USES (Uses)
(catalysts, for cyclotrimerization of butadiene)
IT 15152-78-0 42724-49-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for cyclotrimerization of butadiene)
RN 15152-78-0 HCAPLUS
CN Titanium, trichloro(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)

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RN 42724-49-2 HCAPLUS
CN Titanium, trichloro(3-oxobutanato-O1',O3)- (9CI) (CA INDEX NAME)



LI62 ANSWER 24 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:492864 HCAPLUS Full-text
DOCUMENT NUMBER: 79:92864
TITLE: Polymerizing formaldehyde using a metal chelate catalyst
INVENTOR(S): Ishii, Takami; Inui, Kazuo; Yoshihiro, Kumahara, Hiroshi
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWOXEX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

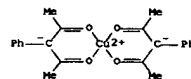
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2226620	A1	19730503	DE 1972-2226620	19720531 <--
DE 2226620	B2	19740207		
DE 2226620	C3	19740905		
JP 48047592	A	19730706	JP 1971-82124	19711019 <--
JP 49035839	B	19740926		

PRIORITY APPL. INFO.:
ED Entered STN: 12 May 1984
AB Anhydrous (<0.5 weight % H₂O) formaldehyde (50-00-0) is polymerized in the presence of a 10-9 to 5 .tim. 10-7 M solution of bis(3-phenylacetylacetonate)copper (I) [15277-28-8] in an inert organic solvent to give improved high-mol.-weight poly(oxymethylene) (II) [9002-81-7] in the suspension at a concentration of 30-150 g/l. solvent. Thus into 1.5 l. stirred PhMe at -78 deg. is blown HCHO [from thermal decomposition of α-poly(oxymethylene)] at -18 deg. until 100g HCHO is dissolved. The soln is warmed to -10 deg., 10-7 mole l in 2 ml PhMe added, and the mixture polymerized 60 min [final temperature 60 deg. suspension concentration 62g/l; intrinsic

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viscosity (η) of II (2 weight % α-pinene at 60 deg.) 7.3]. One-half (700g) of the suspension is stirred with Ac₂O under N and heated to 110 deg., followed by addition of 0.1g BF₃; after 10 min the mol. weight of II is decreased with simultaneous stabilization of end groups. Bu₂N (5 ml) is added, and the product II collected and washed with acetone and dried in vacuo at 80 deg. to give 46g (92% yield) of the acetylated II. The acetylated II (100 parts) is stabilized with 0.5 part malonic acid-xylene diamine copolymer (d.p. 100) and 0.1 part 2,2'-methylenebis (4-methyl-6-tert-butylphenol) to give a composition with η 1.5 and rate constant (of thermal decomposition) K₂₂₂ deg. 0.011/min.

IC C08G
CC 35-4 (Synthetic High Polymers)
ST copper chelate catalyst: polyoxymethylene chelate catalyst: formaldehyde polym catalyst copper
IT Polymerization catalysts
(copper phenylacetylacetonate chelates, for formaldehyde)
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (5P-4-1)- (9CI) (CA INDEX NAME)



IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

N2C=O

LI62 ANSWER 25 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:154463 HCAPLUS Full-text
DOCUMENT NUMBER: 76:154463
TITLE: Catalytic preparation of macromolecular

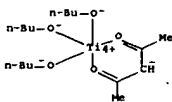
86

INVENTOR(S): formaldehyde polymers
PATENT ASSIGNEE(S): Bonness, Jentjer, Fijpers, Emanuel M. J.
SOURCE: Stamcarbon N. V.
U.S., 4 pp.
CODEN: USXOAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3647754	A	19720307	US 1970-23488	19700327 <--
			US 1970-23488	A 19700327 <--

PRIORITY APPL. INFO.:
ED Entered STN: 12 May 1984
AB High mol. weight polyformaldehyde (I) was prepared by polymerizing HCHO containing 1-10% H₂O at -40 deg. to +60 deg. in an organic solvent containing a titanium catalyst. Thus paraformaldehyde containing 3% H₂O was pyrolyzed in paraffin oil at .sim. 170 deg., and the product was heated 1 hr with PhMe and titanium oleate [14536-10-8] at 20 deg. to give I, inherent viscosity = 7.4.

IC C08F
INCL 260067000
CC 35 (Synthetic High Polymers)
ST formaldehyde polym purifn: polyformaldehyde
prepn: titanium polymn catalyst
IT Polymerization catalysts
(titanium compds., for manufacture of polyformaldehyde)
IT 1292-47-3 5593-70-4 14536-10-8 20025-99-4 22569-26-2
34794-90-6 36073-49-1 36073-50-4 36073-51-5 36073-52-6
36073-54-8
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for manufacture of polyformaldehyde)
IT 67-64-1, uses and miscellaneous 75-09-2 108-88-3, uses and miscellaneous 109-99-9, uses and miscellaneous 142-82-5, uses and miscellaneous
RL: USES (Uses)
(inert solvents, for polyformaldehyde manufacture)
IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 34794-90-6
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for manufacture of polyformaldehyde)
RN 34794-90-6 HCAPLUS
CN Titanium, tributyl(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



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IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

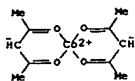
[—O—CH₂—]_n

LI62 ANSWER 26 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:552897 HCAPLUS Full-text
DOCUMENT NUMBER: 77:152897
TITLE: High-molecular formaldehyde polymers
INVENTOR(S): Sugiura, Shotaro; Ishii, Takami; Suzuki, Taro; Takigawa, Naohisa
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXOXD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 47015097	B4	19720506	JP 1965-61357	19651008 <--

ED Entered STN: 12 May 1984
AB Metal chelates, e.g. cobalt acetylacetonate [13681-88-4] catalyzed the polymerization of HCHO in the presence of CO₂ at -70 deg. to polyformaldehyde [9002-81-7], useful for preparing films.
IC C08G
CC 35-4 (Synthetic High Polymers)
ST metal chelate polymn catalyst: formaldehyde polym catalyst: polyformaldehyde film: cobalt acetylacetonate catalyst
IT Polymerization catalysts
(cobalt acetylacetonate, for formaldehyde)
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 14024-48-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 14024-48-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (5P-4-1)- (9CI) (CA INDEX NAME)

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L162 ANSWER 27 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:72710 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 78:72710

TITLE: Metal-containing initiator system. XXXII.

Polymerizations of aldehyde monomers using copper

chelates of methacryloylacetone and isobutyrylacetone

Misaki, Kazuichi; Otsu, Takayuki

Fac. Eng., Osaka City Univ., Osaka, Japan

Nippon Kagaku Kaishi (1972), (12), 2451-2

CODEN: NKAKB8; ISSN: 0369-4577

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

ED Entered STN: 12 May 1984

AB The polymers of chloral (75-87-6) and formaldehyde [50-00-0] were catalyzed by Cu chelates (2:1 molar ratio ketone to Cu) of methacryloylacetone (I), isobutyrylacetone (II) and acetylacetone (III). These chelates did not catalyze the polymerization of acetaldehyde. The catalytic activities for the polymerization of chloral were II Cu chelate >> III Cu chelate .geq. I Cu chelate. The polymers consisted of a polyether chain structure.

CC 35-4 (Synthetic High Polymers)

IT Polyoxymethylenes, preparation

RL: PREP (Preparation)

(catalysts for)

IT Polymerization catalysts

(copper diketone complexes, for aldehydes)

IT 13395-16-9 15716-71-9 23401-30-1

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of aldehydes)

IT 50-00-0, reactions 75-87-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(polymerization of, catalysts for)

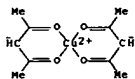
IT 13395-16-9 15716-71-9 23401-30-1

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of aldehydes)

RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato- κ O, κ O')-, (5P-4-1)- (9CI) (CA INDEX NAME)



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JP 46040704 B4 19711201 JP 19671110 <--

ED Entered STN: 12 May 1984

AB Formaldehyde (50-00-0), prepared from heat-decomposed paraformaldehyde, was polymerized in PMe at -10.deg. with tris(acetylacetonato)cobalt (13681-88-4) to give 82% poly(oxymethylene) (I) (9002-81-7). Acetylation of I with Ac₂O in PMe in the presence of C₅H₅N and BF₃.Et₂O gave acetylated I, useful for preparing films having a tensile strength 570 kg/cm² and elongation 11%.

IC C086

CC 36 (Plastics Manufacture and Processing)

ST formaldehyde polym catalyst; polyoxymethylene

acetylation; cobalt acetylacetonate catalyst; film

polyoxymethylene

Polyoxymethylenes, preparation

RL: PREP (Preparation)

(acetylated, films)

IT Acetylation

(of polyoxymethylenes)

IT Polymerization catalysts

(tris(acetylacetonato)cobalt, for formaldehyde)

IT 21679-46-9

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of

formaldehyde)

IT 21679-46-9

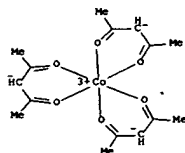
RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of

formaldehyde)

RN 21679-46-9 HCAPLUS

CN Cobalt, tris(2,4-pentanedionato- κ O, κ O')-, (OC-6-11)- (9CI) (CA INDEX NAME)



L162 ANSWER 29 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:100154 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 76:100154

TITLE:

Polymerization of trioxane with

metal acetylacetonates in the presence of acyl

chlorides

Misaki, Toshikazu; Otsu, Takayuki

Fac. Eng., Osaka City Univ., Osaka, Japan

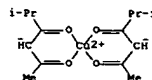
Makromolekulare Chemie (1971), 150, 273-5

CODEN: MACEAK; ISSN: 0025-116X

91

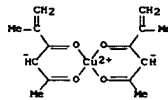
RN 15716-71-9 HCAPLUS

CN Copper, bis(5-methyl-2,4-hexanedionato-0,0')- (9CI) (CA INDEX NAME)



RN 23401-30-1 HCAPLUS

CN Copper, bis(5-methyl-5-hexene-2,4-dionato- κ O, κ O')- (9CI) (CA INDEX NAME)



IT 50-00-0, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(polymerization of, catalysts for)

RN 50-00-0 HCAPLUS

CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

RZ C=O

L162 ANSWER 28 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:100624 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 76:100624

TITLE: Polymerizing formaldehyde

INVENTOR(S): Sugiyama, Shotaro; Ishii, Takami; Suzuki, Taro;

Takigawa, Naohisa

Ube Industries, Ltd.

Jpn. Tokkyo Koho, 8 pp.

CODEN: JAOXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

90

SN10/510,476 Page 92 of 244 STIC STN SEARCH

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Iron tris(acetylacetonate) [14024-18-1], zinc bis(acetylacetonate) [14024-63-6], and nickel bis(acetylacetonate) [3264-82-2] are effective initiators for trioxane polymerization in the presence of acetyl chloride [75-36-5] to give polytrioxane. Metal complexes of acetylacetonate with other metals such as Mn, Cu, Co and TiO are not effective even in the presence of AcCl and Fe, Zn, and Ni complexes or AcCl are not effective by themselves. The optimum AcCl-complex ratio is 5-10. The order of the rate of polymerization in solvents is PhNO₂>CH₂Cl₂>benzene.

CC 35 (Synthetic High Polymers)

ST trioxane polym catalyst; acetylacetonate polym

catalyst; iron polym catalyst; zinc polym catalyst; nickel polym

catalyst; acetyl chloride polym catalyst

IT Polymerization catalysts

(metal acetylacetonate-acetyl chloride, for trioxane)

IT 75-36-5 3264-82-2 13476-99-8 14024-18-1

14024-58-9 14024-63-6 14024-64-7

14284-89-0 17524-03-9 21679-46-9

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for trioxane polymerization)

IT 9002-81-7p

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, catalysts for)

IT 3264-82-2 13476-99-8 14024-18-1

14024-58-9 14024-63-6 14024-64-7

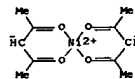
14284-89-0 17524-03-9 21679-46-9

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for trioxane polymerization)

RN 3264-82-2 HCAPLUS

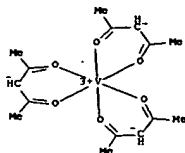
CN Nickel, bis(2,4-pentanedionato- κ O, κ O')-, (5P-4-1)- (9CI) (CA INDEX NAME)



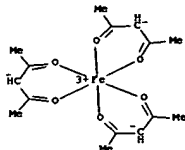
RN 13476-99-8 HCAPLUS

CN Vanadium, tris(2,4-pentanedionato- κ O, κ O')-, (OC-6-11)- (9CI) (CA INDEX NAME)

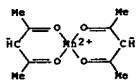
92



RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-kO, kO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



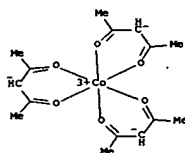
RN 14024-58-9 HCAPLUS
CN Manganese, bis(2,4-pentanedionato-kO, kO')-, (9CI) (CA INDEX NAME)



RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-kO, kO')-, (T-4)- (9CI) (CA INDEX NAME)

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RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-kO, kO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

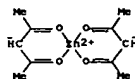


IT 9002-81-7P
RL: SPW (Synthetic preparation); PREP (Preparation) (preparation of, catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

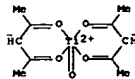


L162 ANSWER 30 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:498875 HCAPLUS Full-text
DOCUMENT NUMBER: 75:98875
TITLE: Influence of various initiators on the homo- and copolymerization of trioxane
AUTHOR(S): Burg, Karlheinz; Schlaf, Helmut; Cherdron, Harald
CORPORATE SOURCE: Farbwerke Hoechst A.-G., Frankfurt/Main-Hoechst, Fed. Rep. Ger.
SOURCE: Makromolekulare Chemie (1971), 145, 247-58
CODEN: MACEAK; ISSN: 0025-116X
DOCUMENT TYPE: Journal
LANGUAGE: German
ED Entered STN: 12 May 1984
AB The rate of the hydride shift side reaction occurring during the homopolymerization of trioxane and its copolymer with dicumylolane (I) was lower in the presence of perchloric acid, boron trifluoride etherate, triphenylmethyl hexafluoroarsenate, and triethyloxonium tetrafluoroborate relative to that in the presence of molybdenyl acetylacetonate (II) or tin tetrachloride. The transacetalization reaction was suppressed in favor of the propagation reaction when HClO₄ and II were used as initiators, and these initiators gave nonstatistical copolymers. BF₃·Et₂O and SnCl₄ did not suppress transacetalization and gave statistical copolymers. The transacetalization

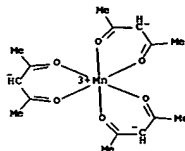
95



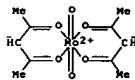
RN 14024-64-7 HCAPLUS
CN Titanium, dioxobis(2,4-pentanedionato-kO, kO')-, (9CI) (CA INDEX NAME)



RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-kO, kO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



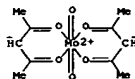
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-kO, kO')-, (OC-6-21)- (9CI) (CA INDEX NAME)



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reaction leading to the connection of 2 1 units was the least favored transacetalization reaction.

CC 35 (Synthetic High Polymers)
ST trioxane dicumylolane polym mechanism; hydride shift
trioxane polym; transacetalization trioxane
polym
IT Polyoxymethylenes, preparation
RL: PREP (Preparation) (catalysts for)
IT Polymerization catalysts (for polyoxymethylene manufacture, transacetalization in relation to)
IT 109-63-7 368-39-8 437-15-0 7601-90-3, uses and miscellaneous
7646-78-8 17524-05-9
RL: CAT (Catalyst use); USES (Uses) (catalysts, for polymerization of trioxane)
IT 9002-81-7P 24969-26-4P
RL: SPW (Synthetic preparation); PREP (Preparation) (preparation of, catalysts for)
IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses) (catalysts, for polymerization of trioxane)
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-kO, kO')-, (OC-6-21)- (9CI) (CA INDEX NAME)



IT 9002-81-7P
RL: SPW (Synthetic preparation); PREP (Preparation) (preparation of, catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



L162 ANSWER 31 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:112511 HCAPLUS Full-text
DOCUMENT NUMBER: 74:112511
TITLE: Morphospecific polymerization: poly(oxymethylene) copolymers
AUTHOR(S): Chen, Catherine S. H.; Wenger, Franz
CORPORATE SOURCE: Celanese Res. Co., Summit, NJ, USA
SOURCE: Journal of Polymer Science, Polymer Chemistry Edition

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(1971), 9(1), 33-49
CODEN: JPLCAT; ISSN: 0449-296X

DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984

AB Molybdenyl bis(acetylacetonate) catalyzed trioxane morphospecific homopolymer and copolymer with 1,3-dioxolane, giving higher m.p. polymers than ordinary cationic catalysts. The m.p.s. of the copolymers as crystallized during polymerization were 10-20° higher than those of the same polymers after recrystn. The effects of catalyst concentration, H₂O, MeOH, methylal, HCO₂H, and C₆H₆ on the yield, polymerization rate, and phys. props. of the polymers are given. A mechanism based on monomer-catalyst complexes for homopolymer and copolymer is given.

CC 35 (Synthetic High Polymers)

IT Polyoxymethylene, preparation
RL: PREP (Preparation)
(catalysts for morphospecific)

IT Polymerization catalysts
(molybdenum complexes, for polyoxymethylene, morphospecific)

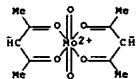
IT Polymerization
(morphospecific, of trioxane)

IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane, morphospecific)

IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane, morphospecific)

RN 17524-05-9 HCAPLUS

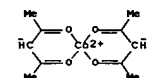
CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)- (9CI) (CA INDEX NAME)



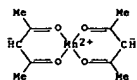
L162 ANSWER 32 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:425961 HCAPLUS Full-text
DOCUMENT NUMBER: 73:25961
TITLE: Metal-containing initiator systems. 27. Polymerizations of isobutyl vinyl ether, α-methylstyrene, trioxane, and styrene oxide with metal acetylacetonates
Nishikawa, Yukitoshi; Otsu, Takayuki
Fac. Eng., Osaka City Univ., Osaka, Japan
Kogyo Kagaku Zasshi (1970), 73(4), 796-9
CODEN: KGKZ7; ISSN: 0368-5462

DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 12 May 1984

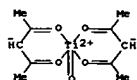
97



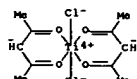
RN 14024-58-9 HCAPLUS
CN Manganese, bis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)



RN 14024-64-7 HCAPLUS
CN Titanium, dioxobis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)



RN 17099-86-4 HCAPLUS
CN Titanium, dichlorobis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)



RN 17524-05-9 HCAPLUS

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AB The initiating activity of several kinds of metal acetylacetonates was examined in the polymerization of iso-Bu vinyl ether (I), α-methylstyrene (II), trioxane (III), and styrene oxide (IV). MoO₂ acetylacetonate (V) was the only compound active for the polymerization of all 4 monomers. The polymerization of I was carried out at 80° in C₆H₆ solution with Mn, Co, MnO₂, TiO₂, TiCl₂, and VO acetylacetonates. Among these compds., only V was active, and the activity of V itself was realized by the co-catalytic effect of some additives, e.g., H₂O or AcCl. The optimum amount of co-catalytic H₂O was 0.33 mole/l. when the concentration of V was 0.0155 mole/l., i.e., the optimum ratio of H₂O to V was about 20, which is considerably larger than the amount of H₂O required in usual cationic polymerization. II was polymerized by V or TiO acetylacetonate (VI) at 30° but the polymerization rate was low, giving less than 1% of polymer after 32 days. III was polymerized at 80° by V, VI, and VO acetylacetonate, but the activity of the latter 2 was far less than that of V. IV could be polymerized by several acetylacetonates, and here again V was far more active than the others. The ir spectra of the polymer of IV indicated a polyether structure, and the presence of crystallinity was suggested in the MeOH-insol. fraction. The addition of H₂O was also effective for the polymerization of IV. The monomer reactivity ratios in the copolymer of styrene (M1) and Me methacrylate (M2) with V as the initiator were r1 = 19.7 and r2 = 0, indicating that the mechanism of polymerization was cationic, although it was contradictory to the results of C. D. Kennedy, et al. (1966). A discussion is given on the mechanism of initiation, including cationic coordination.

CC 35 (Synthetic High Polymers)

IT Polyoxymethylene, preparation
Vinyl compounds, preparation
RL: PREP (Preparation)
(catalysts for)

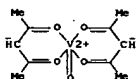
IT Polymerization catalysts
(metal pentanedione complexes, for ethers and vinyl compds.)

IT 3153-26-2 14024-48-7 14024-58-9
14024-64-7 17099-86-4 17524-05-9
21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of vinyl compds.)

IT 3153-26-2 14024-48-7 14024-58-9
14024-64-7 17099-86-4 17524-05-9
21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of vinyl compds.)

RN 3153-26-2 HCAPLUS

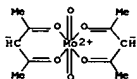
CN Vanadium, dioxobis(2,4-pentanedionato-κO,κO')-, (SP-5-21)- (9CI) (CA INDEX NAME)



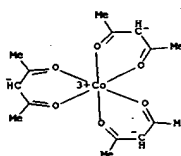
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

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CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



L162 ANSWER 33 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:471189 HCAPLUS Full-text
DOCUMENT NUMBER: 71:71189
TITLE: Preparation of poly(oxymethylene) catalyzed by metal acetylacetonates
Kennedy, Carl D.
Continental Oil Co.
U.S., 5 pp.
CODEN: USOXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3457227	A	19690722	US 1965-439090	19650311 <-
PRIORITY APPL. INFO.:			US 1965-439090	A 19650311 <-

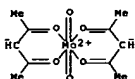
ED Entered STN: 12 May 1984

AB High-mol.-weight poly(oxymethylene) of improved thermal stability was prepared by polymerizing trioxane (I) in the presence of Mo dioxodiacetylacetonate (II). The resulting polymer chains contained a carbonyl group thereby contributing to improved stability of the polymeric product. Thus, initial

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expts. carried out to study the effect of varying the relative amts. of reaction solvent and I on yield and inherent viscosity of the polymer product revealed that maximum yields of poly(oxyethylene) were obtained at a ratio of 2 ml. solvent to 1 g. I or less. Suitable solvents included cyclohexane, heptane, hexane, and CH₂Cl₂. Addnl. expts. illustrating the effect of varying the molar ratio of II to I on yield and polymer properties showed that from 1 + 10-3 to .apprx.1.0 mole % catalyst should be used. Pressure was not critical in the polymerization which could also be carried out in the molten state. Data were presented to show that the poly(oxyethylene) prepared with II was more stable than polymer prepared from HCHO or I using a BF₃ catalyst. II was also effective in inducing a copolymer. of I with oxyethylene-containing cyclic ethers such as glycol formal. The polymers were treated with NH₄OH to remove catalyst residues.

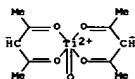
- IC C08G
INCL 260067000
CC 35 (Synthetic High Polymers)
ST polyoxymethylene; trioxane polym; formaldehyde polym; manganese acetylacetonates; catalyst trioxane polym
IT Polyoxymethylene, preparation
RL: PREP (Preparation)
(catalysts for, molybdenum pentanedione complexes as)
IT Solvents, uses and miscellaneous (inert, in polyoxymethylene manufacture in presence of molybdenum pentanedione complex catalysts)
IT Polymerization catalysts (molybdenum pentanedione complexes, for trioxane)
IT 1336-21-6
RL: USES (Uses)
(catalyst removal by, in polyoxymethylene manufacture)
IT 123-54-60, 2,4-Pentanedione, molybdenum complexes 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane)
IT 9002-81-79
RL: IMP (Industrial manufacture); PREP (Preparation)
(manufacture of, molybdenum pentanedione complex catalysts for)
IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane)
RN 17524-05-9 HCAPLUS
CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)



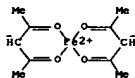
- IT 9002-81-79
RL: IMP (Industrial manufacture); PREP (Preparation)
(manufacture of, molybdenum pentanedione complex catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)

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- IT 14024-17-0 14024-18-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts from titanium pentanedione complexes and, for polymerization of trioxane)
IT 123-54-60, 2,4-Pentanedione, transition metal complexes
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane)
IT 14024-64-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts from iron pentanedione complexes and, for polymerization of trioxane)
RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



- IT 14024-17-0 14024-18-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts from titanium pentanedione complexes and, for polymerization of trioxane)
RN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



- RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

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- L162 ANSWER 34 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:513478 HCAPLUS Full-text
DOCUMENT NUMBER: 71:113478
TITLE: Oxyethylene and thiomethylene polymers
INVENTOR(S): Chen, Catherine S. H.
PATENT ASSIGNEE(S): Celanese Corp.
SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXEK
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1901953		19690911	DE 1969-1901953	19690116 <--
FR 2000345			FR	
GB 1202683			GB	
US 3506615		19700414	US	19680117 <--

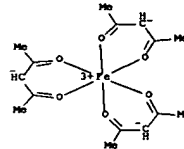
PRIORITY APPLN. INFO.:

ED Entered STN: 12 May 1984

AB Oxyethylene and thiomethylene polymers are prepared by polymerization of the appropriate monomers in the presence of a catalyst containing titanyl acetylacetonate (I) and Fe(II) acetylacetonate (II) and (or) Fe(III) acetylacetonate (III). Thus, a mixture of 0.0359 g. III and 0.027 g. I was added to a melt of 103 g. trioxane (IV) and 5 g. 1,3-dioxane, and the mixture was held 8 hrs. at 65° to give 79.2 g. copolymer, inherent viscosity 0.72 (0.1% in p-ClC₆H₄OH containing 2% α-pinene, 60°). A IV-4-methyl-m-dioxane copolymer was similarly prepared. Melt polymerization of IV occurred only in the presence of III or II with I and not with I, II, or III alone. A solution of 41.1 parts IV and 20 parts cyclohexane was heated and distilled over Na, and a catalyst of 0.0018 part I and 0.0166 part III was added. The mixture was purged with dry Ar and heated 30 min. at 100° to give an oxyethylene polymer, m. 180°. IV-1,3-dioxane and IV-m-dioxane copolymers were similarly prepared. Solution polymerization of trioxane in biphenyl gave a thiomethylene polymer, m. 257°. The addition of amides and alkylenebisphenols to oxyethylene polymers to improve their thermal stability is also described. The catalyst mixts. used were relatively insensitive to bases, thus allowing the use of monomers containing aqueous and alc. impurities.

- IC C08G
CC 35 (Synthetic High Polymers)
ST polyoxymethylene prepns; polythiomethylene prepns; trioxane polym; trithiane polym
IT Polyoxymethylene, preparation
RL: PREP (Preparation)
(catalysts for, transition metal pentanedione complexes as)
IT 14024-64-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts from iron pentanedione complexes and, for polymerization of trioxane)

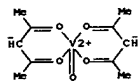
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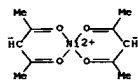
- L162 ANSWER 35 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:121998 HCAPLUS Full-text
DOCUMENT NUMBER: 72:121998
TITLE: Polymerization of formaldehyde by metal chelate catalysts
AUTHOR(S): Ishii, Takami; Suzuki, Taro
CORPORATE SOURCE: Tokyo Polymer Res. Lab., Ube Ind. Ltd., Chiba, Japan
SOURCE: Kogyo Kagaku Zasshi (1969), 72(12), 2644-9
CODEN: KOKZAT; ISSN: 0368-5462
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 12 May 1984
AB Some metal chelates show remarkable catalytic activity for the polymerization of HCHO. The polymerization is performed by using metal chelates of β-diketone, thio-β-diketone, salicylaldehyde, and the Schiff base of salicylaldehyde with a diamine in inert solvents, such as toluene or n-C₇H₁₆, at temps. between -10 and 20°, to give white crystalline polymers with high mol. wts. In the case of metal acetylacetonates, the overall rate of polymerization is affected by the kind and valency state of the central metal and the substituent in the ligand. The order of catalytic activity is as follows: Cu(II) > Zr(II) > Ni(II) > Mn(III) > Co(III) > Th(IV) > Mg(II) > Zn(II) > Fe(III) > Fe(II) > Co(III) > Al(IV). Cu 3-phenylacetylacetonate has the maximum activity and Co tris(acetylacetonate) gives the highest-mol.-weight polymer. The polymerization rate increased with increasing stability constant of the metal chelates, and with increasing basicity of the reaction medium. The results suggest that polymerization took place by a coordination mechanism.
CC 35 (Synthetic High Polymers)
ST formaldehyde polym; metal chelate; metal chelate formaldehyde polym; diketone chelate formaldehyde polym; salicylaldehyde chelate formaldehyde polym
IT Polyoxymethylene, preparation
RL: PREP (Preparation)
(catalysts for)
IT Schiff bases
RL: USES (Uses)
(copper complexes, catalysts, for polymerization of formaldehyde)
IT Polymerization (mechanism of catalytic, of formaldehyde in presence of transition metal complexes)
IT Polymerization catalysts

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(transition metal complexes, for formaldehyde)
 IT Phenol, 2,2'-[ethylenebis(nitrilomethylidene)]di-, cobalt complexes
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, for polymerization of formaldehyde)
 IT 95-45-40, 2,3-Butanedione, dioxime, cobalt complexes 107-15-3D,
 Ethylenediamine, transition metal complexes 123-54-6D, 2,4-Pentanedione,
 transition metal complexes 366-18-7D, 2,2'-Bipyridine, copper complexes
 3153-26-2 3264-82-2 13395-16-9
 13476-99-8 13963-57-0 13978-88-6 14024-17-0
 14024-18-1 14024-48-7 14024-56-7 14024-58-9
 14024-63-6 14024-64-7 14263-52-6
 14284-89-0 14689-45-3 17499-48-8 17501-44-9
 18115-70-3 21679-31-2 21679-46-9 26984-05-6
 36799-66-3
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, for polymerization of formaldehyde)
 IT 3153-26-2 3264-82-2 13395-16-9
 13476-99-8 14024-17-0 14024-18-1
 14024-48-7 14024-58-9 14024-63-6
 14024-64-7 14263-52-6 14284-89-0
 14689-45-3 17501-44-9 21679-31-2
 21679-46-9 26984-05-6 36799-66-3
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, for polymerization of formaldehyde)
 RN 3153-26-2 HCAPLUS
 CN Vanadium, oxobis(2,4-pentanedionato-κO,κO')-, (SP-5-21)- (9CI) (CA INDEX NAME)

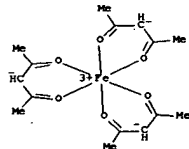


RN 3264-82-2 HCAPLUS
 CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

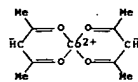


RN 13395-16-9 HCAPLUS
 CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

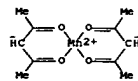
105



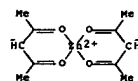
RN 14024-48-7 HCAPLUS
 CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



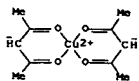
RN 14024-58-9 HCAPLUS
 CN Manganese, bis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)



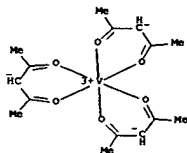
RN 14024-63-6 HCAPLUS
 CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



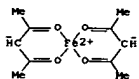
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RN 13476-99-8 HCAPLUS
 CN Vanadium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



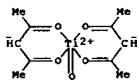
RN 14024-17-0 HCAPLUS
 CN Iron, bis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)



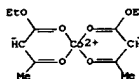
RN 14024-18-1 HCAPLUS
 CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

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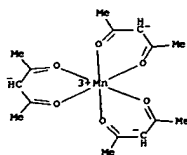
RN 14024-64-7 HCAPLUS
 CN Titanium, oxobis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)



RN 14263-52-6 HCAPLUS
 CN Cobalt, bis[ethyl 3-(oxo-κO)butanoato-κO']-, (9CI) (CA INDEX NAME)

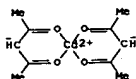


RN 14284-89-0 HCAPLUS
 CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

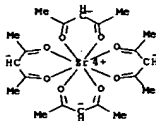


RN 14689-45-3 HCAPLUS
 CN Cadmium, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)

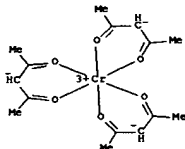
108



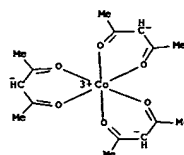
RN 17501-44-9 HCAPLUS
CN Zirconium, tetrakis(2,4-pentanedionato-KO,KO')-,
(SA-8-11''11''1'1''1'1'')-(9CI) (CA INDEX NAME)



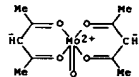
RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)



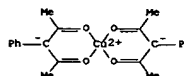
RN 21679-46-9 HCAPLUS
 CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)



RN 28984-05-6 HCAPLUS
CN Molybdenum, oxobis(2,4-pentanedionato-KO,KO')- (9CI) (CA
INDEX NAME)



FN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)-
(9CI) (CA INDEX NAME)



1162 ANSWER 36 OF 71 HCAP15N COPYRIGHT 2007 ACS ON STM
 ACCESSION NUMBER: 1969:524997 HCAP15N Full-text
 DOCUMENT NUMBER: 71:124997
 TITLE: Initiation of polymerization of some vinyl monomers
 and cyclic ethers with metal chelates
 AUTHOR(S): Nishikawa, Yukitohshi; Otsu, Takayuki
 CORPORATE SOURCE: Osaka City Univ., Osaka, Japan
 SOURCE: Makromolekulare Chemie (1969), 128, 276-8
 CODEN: MACEAK; ISSN: 0025-116X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STM: 12 May 1984

AB Various vinyl monomers and cyclic ethers were polymerized in the presence of Mo, Ti, or V acetylacetonates (acac). The following polymers were carried out: (monomer, polymerization temperature, polymerization time in hrs., catalyst, catalyst concentration in moles/l., and % polymer yield given) iso Bu vinyl ether (I), 80°, 9, Mn(acac)3 (II), 1.42 + 102, 0; I, 80°, 9, Co(acac)3 (III), 1.40 + 102, 0; I, 80°, 9, Mn(acac)2 (IV), 1.96 + 102, 0; I, 80°, 9, Co(acac)2 (V), 1.95 + 102, 0; I, 80°, 9, MoO2(acac)2 (VI), 1.55 + 102, 21.8; I, 80°, 9, TiO(acac)2 (VII), 1.91 + 102, 0.1; I, 80°, 9, VO(acac)2 (VIII), 1.89 + 102, 0; α -methylstyrene (IX), 30°, 768, II, 1.42 + 102, 0; IX, 30°, 768, III, 1.40 + 102, 0; IX, 30°, 768, IV, 1.96 + 102, 0; IX, 30°, 768, V, 1.95 + 102, 0; IX, 30°, 768, VI, 1.55 + 102, 0; IX, 30°, 768, VII, 1.91 + 102, 0; IX, 30°, 768, VIII, 1.89 + 102, 0; 1,3-dioxolane (X), 5, 1.42 + 102, 0; X, 80°, 5, III, 1.40 + 102, 0; X, 80°, 5, IV, 1.96 + 102, 0; X, 80°, 5, V, 1.95 + 102, 0; X, 80°, 5, VI, 1.55 + 102, 17.0; X, 80°, 5, VII, 1.91 + 102, 1.4; X, 80°, 5, VIII, 1.89 + 102, 1.1. Yields of 20.3 and approx. 100% were obtained by polymerizing styrene oxide in solution and bulk, resp., in the presence of VI. Low yields were obtained in the presence of VII, V(acac)3 or Ca(acac)2. VI also induced polymerization of propylene oxide, epichlorohydrin, and allyl glycidyl ether, presumably by a coordinated or

CC 35 (Synthetic High Polymers)
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for, metal acetylacetonate)

IT Polymerization catalysts
(metal acetylacetonate, for cyclic ethers and vinyl compds.)

IT 123-54-60, 2,4-Pentanedione, metal complexes 3153-26-2

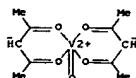
13476-99-8 14024-48-7 14024-64-7

14284-89-0 17524-05-9 19372-44-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of cyclic ethers and vinyl
comods.)

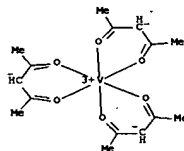
IT 14024-58-9P, Manganese, bis(2,4-pentanedionato)-
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 3153-26-2 13476-99-8 14024-48-7
14024-64-7 14284-89-0 17524-05-9
21679-46-9
RI: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of cyclic ethers and vinyl
compounds.)

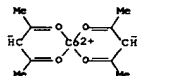
RN 3153-26-2 HCAPIUS
 CN Vanadium, oxobis(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (SP-5-21) - (9CI)
 (CA INDEX NAME)



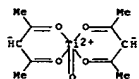
RN 13476-99-8 HCAPLUS
 CN Vanadium, tris(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (OC-6-11)- (9CI)
 (CA INDEX NAME)



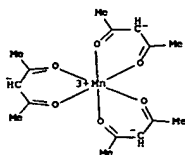
FN 14024-48-7 HCAPLUS
CN Cobalt, bis (2,4-pentanedionato-KO,KO')-, (SP-4-1) - (9CI) (CA
INDEX NAME)



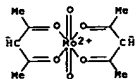
RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato- $\kappa O, \kappa O'$)-(9CI) (CA INDEX NAME)



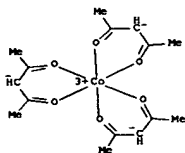
RN 14284-89-0 HCAPLUS
 CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)



RN 17524-05-9 HCAPLUS
 CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
 CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

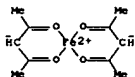


IT 14024-58-9P, Manganese, bis(2,4-pentanedionato)-
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 14024-58-9 HCAPLUS
 CN Manganese, bis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)

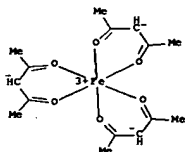
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IT 123-54-6D, 2,4-Pentanedione, metal complexes 13963-57-0
 14024-17-0 14024-18-1 14024-48-7
 14024-63-6 14284-89-0 21679-31-2
 21679-46-9
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, for polymerization of formaldehyde)
 IT 108-88-3, uses and miscellaneous 142-82-5, uses and miscellaneous
 RL: USES (Uses)
 (solvents, for polymerization of formaldehyde in presence of metallic chelates)
 IT 14024-17-0 14024-18-1 14024-48-7
 14024-63-6 14284-89-0 21679-31-2
 21679-46-9
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, for polymerization of formaldehyde)
 RN 14024-17-0 HCAPLUS
 CN Iron, bis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)

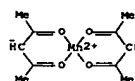


RN 14024-18-1 HCAPLUS
 CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 14024-48-7 HCAPLUS
 CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (5P-4-1)- (9CI) (CA INDEX NAME)

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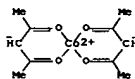


L162 ANSWER 37 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1969:502316 HCAPLUS Full-text
 DOCUMENT NUMBER: 71:102316
 TITLE: Polymerization of formaldehyde in the presence of metallic chelates
 AUTHOR(S): Schlosser, L.; Niculiu, C.
 SOURCE: Materiale Plastice (Bucharest, Romania) (1969), 6(3), 127-8
 CODEN: MPLAW; ISSN: 0025-5289

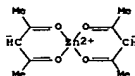
DOCUMENT TYPE: Journal
 LANGUAGE: Romanian
 ED Entered STN: 12 May 1984
 AB The effects of initiator concentration, solvent, and central metal atom on the polymerization of HCHO in the presence of various metal acetylacetonates were investigated. HCHO was generated by pyrolysis of g-poly(oxyethylene). Metal acetylacetonate initiators used were those derived from Al(III), Cr(III), Co(II), Co(III), Fe(II), Fe(III), Zn(II), and Mn(III). Polymerization was carried out by introducing a HCHO-N stream into 800 g. heptane or PhMe containing the initiator and an antioxidant. The order of reactivity of the acetylacetonates was Al(III) > Cr(III) > Co(II) < Co(III) < Fe(II) < Fe(III) < Zn(II) < Mn(III). The lower valence acetylacetonates of multivalent metals were more stable and hence less efficient as polymerization catalysts. The concentration of initiator had little effect on the polymerization. The solvent had a marked effect on the intrinsic viscosity and thermal stability constant of the polymers obtained. The formula $[\eta] = t/(a + bt)$, where $[\eta]$ = intrinsic viscosity, t = time, and a and b are coeffs. characteristic of each curve was obtained by a graphical method, and allowed calcn. of the reaction time necessary to obtain a polymer of a given viscosity. The distribution curves of polymers obtained in heptane and PhMe were virtually superimposable on those of Delcin 500 and Delrin 150, resp. The polymer obtained in PhMe was more homogeneous than that obtained in heptane. Acetylacetonate initiators were less sensitive to the impurities generally found in HCHO, since polymers with greater homogeneity were obtained.
 CC 35 (Synthetic High Polymers)
 ST ~~polym formaldehyde~~ metal chelates; chelates
~~polym formaldehyde~~ metal; metal chelates ~~polym formaldehyde~~ metal chelates ~~polym formaldehyde~~ metal chelates ~~polym formaldehyde~~ metal chelates ~~polym formaldehyde~~ metal chelates ~~polym formaldehyde~~ metal chelates
 IT ~~Polyoxymethylenes, preparation~~
 RL: PREP (Preparation)
 (catalysts for, metal pentanedione complexes as)
 IT Solvent effects
 (in polymerization of formaldehyde in presence of metal chelates)
 IT Polymerization catalysts
 (metal pentanedione complexes, for formaldehyde)
 IT Polymerization

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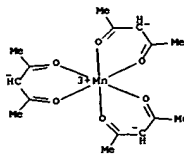
SN10/510,476 Page 116 of 244 STIC STN SEARCH



RN 14024-63-6 HCAPLUS
 CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)

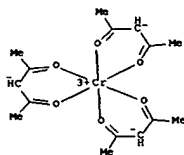


RN 14284-89-0 HCAPLUS
 CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

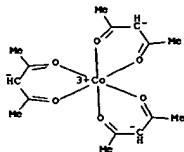


RN 21679-31-2 HCAPLUS
 CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

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RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)



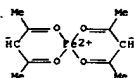
L162 ANSWER 38 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:499269 HCAPLUS Full-text
DOCUMENT NUMBER: 73:99269
TITLE: Polymerization and copolymerization of aldehydes
AUTHOR(S): Kharitonov, G. V.; Tkacheva, A. P.; Purikova, V. P.
CORPORATE SOURCE: USSR
SOURCE: Tr. Kirg. Gos. Univ., Ser. Khim. Nauk (1968)
From: Ref. Zh., Khim. 1969, Abstr. No. 125133
CODEN: 17MGAC
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
AB Polymerization and copolymerization capacity of series of aldehydes with various radicals was studied with the reaction conducted in the presence of electrophilic and nucleophilic catalysts. The substituents having a pos. inductive effect significantly decreased the polymerization and copolymerization capacity of aldehydes; but the substituents having a neg. inductive effect activated the carbonyl group. The substituent conjugations (furan and CGHS nuclei) also stabilized the carbonyl π-bond under the pos. effect, making it very difficult for furfural to transform to a heterochain polymer. The presence of a nucleophilic catalyst yielded a new HCHO copolymer with furfural

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SN10/510,476 Page 119 of 244 STIC STN SEARCH

ED Entered STN: 12 May 1984
AB Anhydrous HCHO is polymerized using polyvalent metal chelates of acetylacetone as initiators and then acetylated to yield branched chain poly(oxymethylene) polyacetates with mol. wts. 10,000-190,000. Thus, 200 g. g-poly(oxymethylene) is added over 2 hrs. to 1500 g. di-Et ether of diethylene glycol containing 4 ml. H₃PO₄ at 140-60°, producing HCHO vapor which is passed through 2 traps at 0° and -20°, resp., to give anhydrous HCHO. The HCHO is added over 35 min. at 27-33° to 2000 g. (AcO)CH₂ and 0.148 g. Zn acetylacetonate in 7.4 ml. PhMe. After Ac₂O 20, NaOAc 0.8, and PrCH(CGHS)(Me) (OH) tert-Bu-2,4,5,2 (II) 0.4 g. are added and refluxed 1 hr. and the product is separated, washed with water and with acetone containing 0.1 g. II, and dried in vacuo to give 86.7 g. branched-chain poly(oxymethylene) polyacetate, mol. weight 62,500 and, from Brabender Plasticorder tests, degradation slope 7.2, shear slope 10.8, rotor speed at maximum torque 80 rpm., torque loss due to shear 66%, and final torque 440 m.-g. Similarly, polymers with mol. wts. 45,000, 47,000, 10,000, 190,000, 27,000, 10,000, 21,000, -, were produced when ferric, ferrous, Al, manganic, cobaltic, Cr, Zr, and titanil acetylacetonates, resp., were used as the initiators.

INCL 260067000
CC 35 (Synthetic High Polymers)
ST CHELATE CATALYZED POLYFORMALDEHYDES; POLYFORMALDEHYDES
CHELATE CATALYZED; POLYFORMALDEHYDE POLYMER CHELATE
CATALYZED; POLYMER POLYFORMALDEHYDE CHELATE CATALYZED;
CHELATE CATALYZED POLYFORMALDEHYDE POLYMER
IT Polymerization catalysts
(metal-2,4-pentanedione complexes as, for formaldehyde)
IT Acetylation
(of poly(oxymethylene))
IT 13963-57-0 14024-17-0 14024-18-1 14024-63-6
14024-64-7 14284-89-0 17501-44-9
21679-31-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 9002-81-7P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of, catalysts for, metal-2,4-pentanedione complexes as)
IT 14024-17-0 14024-18-1 14024-63-6
14024-64-7 14284-89-0 17501-44-9
21679-31-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)



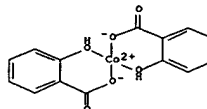
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

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having 12 furfural units/100 HCHO units. Copolym. of furfural and HCHO in the presence of an electrophilic catalyst in a neutral medium gave a C-chain copolymer rather than a heterochain copolymer. The HCHO copolymer with vinylfuran had a higher m.p. than polyformaldehyde and increased with vinylfuran content. The induction period and polymerization and copolym. rate of HCHO and vinylfuran depended on the nature of catalyst and solvent. HCHO copolymers were also obtained with BzH and cinnamaldehyde, acrylonitrile, furylethylene malonate and butyl methacrylate. Polycondensation of furfural in the presence of an electrophilic catalyst formed infusible and insol. crosslinked polymers.

CC 35 (Synthetic High Polymers)
ST aldehydes polym copolym catalytic; catalytic copolym polym aldehydes; formaldehyde polym catalytic; electrophilic catalysis aldehyde polym; nucleophilic catalysis aldehyde polym; furfural polycondensation
IT Polymerization catalysts
(ammonia derivs. and metal salts, for aldehydes)
IT 5931-89-5 7664-41-7, uses and miscellaneous 12125-01-8 13586-84-0
30588-10-4 55195-85-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of aldehydes)
IT 55195-85-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of aldehydes)
RN 55195-85-2 HCAPLUS
CN Cobalt, bis(2-(hydroxy-κO)benzoato-κO)- (9CI) (CA INDEX NAME)

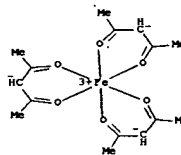


L162 ANSWER 39 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:86130 HCAPLUS Full-text
DOCUMENT NUMBER: 66:86130
TITLE: Polymerization of formaldehyde in the presence of a polyvalent metal chelate of a beta-diketone
INVENTOR(S): Reynolds, Richard E.
PATENT ASSIGNEE(S): Tenneco Chemicals, Inc.
SOURCE: U.S., 10 pp.
CODEN: USXOAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

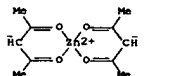
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3305529		19670221	US 1963-293843	19630709 <-

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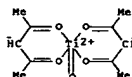
SN10/510,476 Page 120 of 244 STIC STN SEARCH



RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)

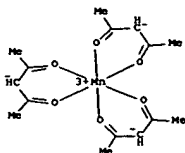


RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')-, (9CI) (CA INDEX NAME)

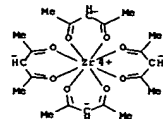


RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

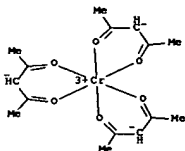
120



RN 17501-44-9 HCAPLUS
CN Zirconium, tetrakis(2,4-pentanedionato- κ^2, κ^2)-,
(5A-8-11''11''11''11''11''11''11'')- (9CI) (CA INDEX NAME)

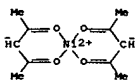


RN 21679-31-2 HCAPLUS
 CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
 CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)

IC C08F; C08G
CC 45 (Synthetic High Polymers)
IT Polyoxymethylene
(butadiene modified)
IT Formaldehyde, polymer with butadiene
RL: PREP (Preparation)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl
compsd.)
IT 78-94-4, 3-Buten-2-one
(polymerization of, with HCHO or trioxane)
IT 50-00-0, Formaldehyde
(polymerization of, with vinyl comps.)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl
compsd.)
RN 3264-82-2 HCAPJWS
CN Nickel, bis(2,4-pentanedionato-KO,KO')-, (5P-4-1)- (9CI) (CA
INDEX NAME)

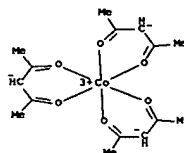


IT 50-00-0, Formaldehyde
(polymerization of, with vinyl compds.)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

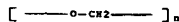
12. Conclusion

L162 ANSWER 41 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STM
 ACCESSION NUMBER: 1965:446749 HCAPLUS Full-text
 DOCUMENT NUMBER: 63:46749
 ORIGINAL REFERENCE NO.: 63:8518c-d
 TITLE: Poly (oxymethylene)s
 INVENTOR(S): Baum, Alric
 PATENT ASSIGNEE(S): Distillers Co. Ltd.
 SOURCE: 2 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 998347		19650714	GB 1963-41390	19631019 <--



IT 9002-81-7P
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and acetylation of, catalysts for, metal-2,4-pentanedione
 complexes as)
 RN 9002-81-7 HCAPIUS
 CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)



L162 ANSER 40 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STM
ACCESSION NUMBER: 1965:463654 HCAPLUS Full-text
DOCUMENT NUMBER: 63:63654
ORIGINAL REFERENCE NO.: 63:1732-e
TITLE: Formaldehyde copolymers
INVENTOR(S): Hasseldine, Robert N.; Birchall, John M.; Wood, Derek
H.
SOURCE: 2 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1002002		19650818	GB 1963-33001	19630821 <--
PRIORITY APPLN. INFO.:			GB	19630821 <--

PRIORITY ATTN. INFO.	GB	19630821 <--
ED Entered STM: 22 Apr 2001		
AB	<p>Copolymers of HCHO and butadiene (I) are prepared by subjecting the anhydrous monomer mixture to polymerization by heating in the presence of a free radical initiator, such as tert-BuO₂. The preferred polymerization temperature range is 50-170°. Thus, a liquid phase mixture of 0.15 mole I and 0.4 mole HCHO was irradiated at 100° in a 7-ml. silica tube for 24 hrs. by means of a 500-w. Hg discharge tube. The initial pressure was approx. 30 atmospheric. The polymeric product weighed 2.0 g. and contained approx. 0.3 g. polyacetaldehyde. The 1.7 g. yield of copolymer was separated from the homopolymer as a rubbery material. Analysis showed that it contained C 62.1 and H 8.38, indicating a molar ratio of I to HCHO units of 1:2.</p>	

AB HCHO is polymerized in an inert solvent in the presence of a metal acetylacetonate as catalyst. For example, gaseous HCHO was prepared by the thermal decomposition of cyclohexyl hemiformal and was purified by passage through a glass trap and an 18-in. Cu coil each maintained at -151. The HCHO (82 g.) was fed into a 700-ml. stirred flask containing 200 ml. 1,2-dichloroethane and 0.05 g. Al acetylacetonate. The reaction was allowed to proceed for 60 min., when the HCHO supply was cut off and 300 ml. EtOH added. The polymer was filtered, washed with EtOH, and dried in a vacuum oven at 40°. The polymer yield was 44.0 g.

IC COB8
 CC 45 (Synthetic High Polymers)
 IT Polyoxymethylene
 (manufacture by HCHO polymerization, with metal complexes of 2,4-pentanedione as catalysts)

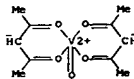
IT Polymerization
 (of formaldehyde, 2,4-pentanedione metal complex catalysts in)

IT 3153-26-2, Vanadium, oxobis(2,4-pentanedionato)-
 (catalysts in polymerization of HCHO)
 IT 13395-16-9, Copper, bis(2,4-pentanedionato)- 13963-57-0,
 Aluminum, tris(2,4-pentanedionato)- 14024-10-1, Iron,
 tris(2,4-pentanedionato)- 17501-44-9, Zirconium,
 tetrakis(2,4-pentanedionato)- 17501-79-0, Titanium,
 tetrakis(2,4-pentanedionato)-
 (catalysts, in polymerization of HCHO)

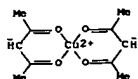
IT 50-00-0, Formaldehyde
 (polymerization of, 2,4-pentanedione metal complex catalysts in)

IT 3153-26-2, Vanadium, oxobis(2,4-pentanedionato)-
 (catalysts in polymerization of HCHO)

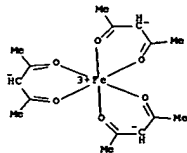
RN 3153-26-2 HCAPLUS
 CN Vanadium, oxobis(2,4-pentanedionato- Co, Co^0)-, (5P-5-21)- (9CI)
 (CA INDEX NAME)



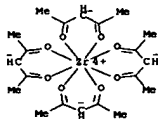
IT	13395-16-9, Copper, bis(2,4-pentanedionato)- 14024-18-1, iron, tris(2,4-pentanedionato)- 17501-44-9, Zirconium, tetrakis(2,4-pentanedionato)- 17501-79-0, Titanium, tetrakis(2,4-pentanedionato)- <u>(catalysts, in polymerization of HCHO)</u>
RN	13395-16-9 HCAPLUS
CN	Copper, bis(2,4-pentanedionato-2, KO ⁺)-, (SP-4-1)- (SCI) (CN INDEX NAME)



RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (OC-6-11)- (9CI) (CA
INDEX NAME)

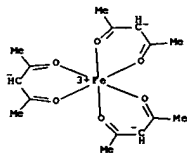


RN 17501-44-9 HCAPLUS
CN Zirconium, tetrakis(2,4-pentanedionato-κO,κO')-,
(SA-8-11''11''1'1''1'1'')- (9CI) (CA INDEX NAME)



RN 17501-79-0 HCAPLUS
CN Titanium, tetrakis(2,4-pentanedionato- α, α')-(9CI) (CA INDEX NAME)

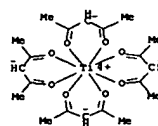
IT pentanedionatoiron(III) catalysts in
IT 14024-18-1, Iron, tris(2,4-pentanedionato)iron(III)
(catalysts from organic acid halides and, in
polymerization of s-trioxane)
IT 75-36-5, Acetyl chloride 506-96-7, Acetyl bromide
(catalysts from tris(2,4-pentanedionato)iron and, in
polymerization of s-trioxane)
IT 5023-81-4, Benzoyl chloride, O-(benzylsulfonyl)oxime
(catalysts from tris(2,4-pentanedionato)iron(III) and, in
polymerization of s-trioxane)
IT 123-54-6, 2,4-Pentanedione
(iron complexes, catalysts from organic acid halides and, in
polymerization of s-trioxane)
IT 110-88-3, s-Trioxane
(polymerization of, organic acid halides and
tris(2,4-pentanedionato)iron(III) as catalysts in)
IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts from organic acid halides and, in
polymerization of s-trioxane)
RN 14024-18-1 HCAPJUS
CN Iron, tris(2,4-pentanedionato-ato, KO⁺)-, (OC-6-11)- {9CI} (CA
INDEX NAME)



IT 110-88-3, s-Trioxane
(polymerization of, organic acid halides and
tris(2,4-pentanedionato)iron(III) as catalysts in)
RN 110-88-3 HCAPLUS
CN 1,3,5-Trioxane (9CI) (CA INDEX NAME)



L162 ANSWER 43 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:19950 HCAPLUS Full-text
DOCUMENT NUMBER: 64:19950
ORIGINAL REFERENCE NO.: 64:3715b-c
TITLE: Catalysts for polymerization of



IT 50-00-0, Formaldehyde
(polymerization of, 2,4-pentanedione metal complex catalysts
in)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

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L162 ANSWER 42 OF 71 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 1965:410669 HCAPLUS Full-text
DOCUMENT NUMBER: 63:10669
ORIGINAL REFERENCE NO.: 63:1899h,1900a
TITLE: Polysensitization of trauma
INVENTOR(S): Barton, John M., Baum, Alexander L. J.
PATENT ASSIGNEE(S): Distillers Co. Ltd.
SOURCE: 3 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 988335		19650407	GB 1962-47407	19621215 <--
FR 1384915				

Entered STN: 22 Apr 2001

AB High-mol.-weight poly(oxymethylene) is prepared by polymerising trioxane (I) by using ferric acetylacetonate (II) and an organic acid halide as catalysts. Thus, 25 ml. of a solution of I in ethylene chloride containing 15 g. I was mixed with 0.26 g. II in a dry tube under N and 0.5 ml. acetyl chloride was added. The polymer formed rapidly. The tube was placed in a water bath at 40° C for 21.5 hr. (total 22.5 hr.). The tube was removed, the polymer broken up and filtered, then washed with acetone, dried, and the polymer broken up and vacuum dried at 50°. givng 12.7 g.

IC B01J
CC 45 (Synthetic High Polymers)
IT Catalysts and Catalysis
 (in polymerization of 3-trioxane, organic acid halides
 and tri-(2,4-pentanedionato)iron(III) as)
IT Polymerization
 (of 3-trioxane, organic acid halide-tris(2,4-

PATENT ASSIGNEE(S):	<u>formaldehyde</u> Chemische Werke Huels A.-G.
SOURCE:	4 pp.
DOCUMENT TYPE:	Patent
LANGUAGE:	Unavailable
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1399196		19650514	FR 1964-978841	19640619 <--
PRIORITY APPLN. INFO.:			DE	19630710 <--

AB Entered STN: 22 Apr 2001

AB **Polymorphalldehyde** is prepared by using metal carbonyl chelate as catalysts in organic solvents. For example, 0.2 g. of the chelate of acetylacetone with Al was dissolved in 4 l. of CGHS with stirring. Then, 200 g. HCHO was distilled into the solution during 1 hr. Polymerization occurred instantaneously with evolution of heat. The reaction mixture was kept at 18° under N. After 30 min., the precipitate was filtered, washed with 2 l. CGHS, dried in air, and finally dried at various temperatures. This 195 g. of snow-white polymer was obtained with a reduced viscosity of 1.25. A pressed sheet was flexible and elastic. Fe3+, Fe2+, Ce3+, Cu2+, Ni2+, Mg2+, Zn2+, and Zr4+ acetyl acetonates, Cu benzoylacetate, and cupric Et. acetoacetate were also used.

IC C08G
OC 45 (Synthetic High Polymers)
IT Polyoxymethylenes
(manufacture by HCHO polymerization, with metal complexes of
β-diketones as catalysts)

IT Polymerization
(of formaldehyde, β -diketone-metal complex catalysts
for)

IT 14024-18-1, Iron, tris(2,4-pentanedionato)- 15653-01-7, Cerium,
tris(2,4-pentanedionato)-

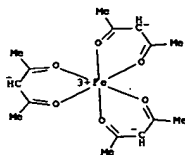
(catalysts for anionic polymerization of HCHO)
 3264-82-2, Nickel, bis(2,4-pentanedionato)- 13395-16-9,
 Copper, bis(2,4-pentanedionato)- 13963-57-0, Aluminum,
 tris(2,4-pentanedionato)- 14024-17-0, Iron, bis(2,4-
 pentanedionato)- 14024-56-7, Magnesium, bis(2,4-pentanedionato)-
 14024-63-9, Zinc, bis(2,4-pentanedionato)- 14120-84-8,
 Cobalt, bis(1,3-bis(2-oxopropyl)-2-oxopropanato)- 17594-06-1, Copper,
 bis(hydrogenacetatoacetato)-, diethyl ester 17594-44-9, Zirconium,
 tetrakis(2,4-pentanedionato)-

IT 50-00-0, Formaldehyde
(catalysts, in polymerization of HCHO)
(polymerization of, metal complexes of β -diketones as catalysts for)

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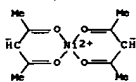
catalysts for)
IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts, for polymerization of HCHO)
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-KO,KO')-, (OC-6-11)- (9CI) (CA
INDEX NAME'

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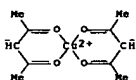


IT 3264-82-2, Nickel, bis(2,4-pentanedionato) - 13395-16-9,
Copper, bis(2,4-pentanedionato) - 14024-17-0, Iron,
bis(2,4-pentanedionato) - 14024-63-5, Zinc, bis(2,4-
pentanedionato) - 14128-84-8, Copper, bis(1-phenyl-1,3-
butanedionato) - 14294-06-1, Copper, bis(hydrogenacetoacetato)-,
diethyl ester 17501-44-9, Zirconium, tetrakis(2,4-
pentanedionato) -
(catalysts, in polymerization of HCHO)

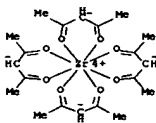
RN 3264-02-2 HCAPWS
 CN Nickel, bis(2,4-pentanedionato-KO,KO')-, (5P-4-1)- (9CI) (CA
 INDEX NAME)



RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (5P-4-1)- (9CI) (CA
INDEX NAME)



RN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato-KO,KO')- (9CI) (CA INDEX NAME)



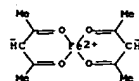
IT 50-00-0, Formaldehyde
(polymerization of, metal complexes of β -diketones as
catalysts for)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

$$\text{H}_2\text{C}=\text{O}$$

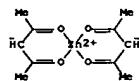
L162 ANSWER 44 OF 71 HCAPULS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1966:19968 HCAPULS Full-text
 DOCUMENT NUMBER: 64:19968
 ORIGINAL REFERENCE NO.: 64:3718b, 3719a-c
 TITLE: Formaldehyde glymers
 INVENTOR(S): Sidi, Henri; Reynolds, Richard E.
 PATENT ASSIGNEE(S): Heyden Newport Chemical Corp.
 SOURCE: 13 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1398747		19650514	FR 1963-948197	19630920 <--
NL 298169			NL	
PRIORITY APPLN. INFO.:			US	19620920 <--

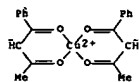
NL 298169
 PRIORITY APPLIN. INFO.:
 ED Entered STM: 22 Apr 2001
 AD Trough, high-molecular-weight polymers are prepared by contacting substantially
 anhydrous HCHO monomer with a chelate of a polyvalent metal. Thus, anhydrous
 HCHO monomer was prepared by adding 100 g. of p-poly(*o*-methylthylene) during 60
 min. to a reactor containing an agitated solution of 2 ml. H₃PO₄ in 750 g. of
 the di-Et ether of diethylene glycol at 140-150°. The HCHO gas generated was
 passed through 2 traps maintained at 0 and -30°, resp. The gas then
 passed into 1000 g. CH₂(OAc)₂ containing a solution of 0.1 g. Fe(III)
 acetylacetonate in 5 ml. toluene and 0.1 g. 4,4'-butyldienebis(3-methyl-6-
 tert-butylphenol) (I). The polymerization mixture was agitated and maintained
 at 21-32.5°. Following polymerization, 10 g. (AcO)₂Na and 0.4 g. NaOAc were
 added to the mixture, which was gradually warmed to reflux at 164-7° and held
 at this temperature for 2 hrs. The mixture was cooled to 125° at a rate of 7-



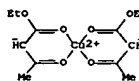
RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (T-4)- (9CI) (CA INDEX
NAME)



RN 14128-84-8 HCAPLUS
 CN Copper, bis(1-phenyl-1,3-butanedionato-κO,κO')- (9CI) (CA
 INDEX NAME)



RN 14284-06-1 HCAPLUS
CN Copper, bis[ethyl 3-(oxo-κO)butanoato-κO']- (9CI) (CA INDEX NAME)



RN 17501-44-9 HCAPLUS
CN Zirconium, tetrakis(2,4-pentanedionato-kO,kO')-,
(SA-8-11''11''11''11'')-(9CI) (CA INDEX NAME)

8°/hr. and then more rapidly to room temperature. The poly(oxymethylene) acetate thus obtained was filtered and washed successively with 500 ml. Me₂CO, 2 500-ml. portions of H₂O, 500 ml. Me₂CO, and a solution of 0.1 g. I in 500 ml. Me₂CO. After desiccation, 34 g. polymer having a mol. weight of 45,000 was obtained. The following polymerization initiators: acetylacetonate chelates of Fe(III), Al, Mn, Co(III), Zn, Ti, Zr, Cu, and Sn(II), the dimethylglyoxime chelate of Ni, and 8-hydroxyquinoline chelates of Cu and Sn(II) can also be used. The polymers thus obtained are branched-chain poly(oxymethylene) polyacetates.

IC polyacetalates.
C08G
CC 45 (Synthetic High Polymers)
IT Polyoxymethylene
(manufacture by HCHO polymerization, with chelates of polyvalent metals as catalysts)

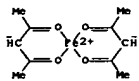
IT 12148-41-3, Tin, bis(8-quinolinolato)- 13478-93-8, Nickel, bis(dimethylglyoximate)- 13478-93-8, Glyoxime, dimethyl-, nickel complex 13963-57-0, Aluminum, tris(2,4-pentanedionato)- 14024-17-0, Iron, bis(2,4-pentanedionato)- 14024-18-1, Iron, tris(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 21679-46-9, Cobalt, tris(2,4-pentanedionato)- (catalysts, in polymerization of HCHO)

IT 50-00-0, Formaldehyde
(polymerization of, chelates of polyvalent metals as catalysts in)

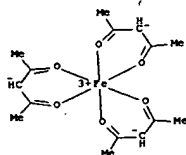
IT 123-54-6, 2,4-Pentanedione
(polyoxymethylenes modified by)

IT 14024-17-0, Iron, bis(2,4-pentanedionato) - 14024-18-1,
Iron, tris(2,4-pentanedionato) - 14024-63-6, Zinc,
bis(2,4-pentanedionato) - 21679-45-9, Cobalt,
tris(2,4-pentanedionato) -
(catalysts, in polymerization of HCHO)

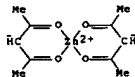
FN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato- $\kappa O, \kappa O'$)-(9CI) (CA INDEX NAME)



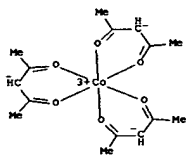
FN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-KO,KO')-, (OC-6-11)- (9CI) (CA
INDEX NAME)



RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

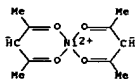


IT 50-00-0, Formaldehyde
(polymerisation of, chelates of polyvalent metals as catalysts in)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

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IT 78-94-4, 3-Buten-2-one 80-62-6, Methyl methacrylate
(polymerisation of, with HCHO or trioxane)
IT 50-00-0, Formaldehyde 110-88-3, s-
Trioxane
(polymerisation of, with vinyl compds.)
IT 41232-42-2P, Vinyl acetate, polymer with trioxane
790693-42-4P, Methacrylaldehyde, polymer with trioxane
RL: PREP (Preparation)
(preparation of)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl compds.)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



IT 50-00-0, Formaldehyde 110-88-3, s-
Trioxane
(polymerisation of, with vinyl compds.)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

R2C=O

RN 110-88-3 HCAPLUS
CN 1,3,5-Trioxane (9CI) (CA INDEX NAME)



L162 ANSWER 46 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:455124 HCAPLUS Full-text
DOCUMENT NUMBER: 63:55124
ORIGINAL REFERENCE NO.: 63:10091e-g
TITLE: Formaldehyde polymers and copolymers
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: 7 pp.

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R2C=O

L162 ANSWER 45 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:463655 HCAPLUS Full-text
DOCUMENT NUMBER: 63:63655
ORIGINAL REFERENCE NO.: 63:11732e-f
TITLE: Formaldehyde copolymers
INVENTOR(S): Wolf, Calvin N.
PATENT ASSIGNEE(S): Ethyl Corp.
SOURCE: 10 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1392124		19650312	FR 1964-969834	19640406 <--
GB 1026237			GB	19630409 <--

PRIORITY APPLN. INFO.: US

ED Entered STN: 22 Apr 2001

AB Copolymers of HCHO and α-olefins of the type described in Fr. 1,355,103 (CA 62, 11939f) are prepared using similar techniques. Thus, a mixture of trioxane 50, acrylonitrile 6, and BF₃OEt₂ 0.06 part was agitated at 90° for 40 min. under dry N. The polymeric product, after grinding to a powder, had a m.p. of 172°, a crystalline m.p. of 157°, and an inherent viscosity of 0.4 (0.5% solution in p-chlorophenol containing 2% α-pinene at 60°). The yield of copolymer was 63%. Similar copolymers were prepared with the following comonomers: Bu acrylate, methylacrolein, Me methacrylate, vinyl acetate, acrylic acid, vinyl butyrate, and vinyl chloride.

IC C08G
CC 45 (Synthetic High Polymers)
IT Polysymethylenes
(modified by vinyl compds.)
IT Polymerization
(of formaldehyde and trioxane, with vinyl compds.)
IT Vinyl compounds
(polymerization of, with HCHO or trioxane)
IT Acrylonitrile, polymer with HCHO
Butyric acid, polymer with HCHO
Butyric acid, polymer with trioxane
Ethylene, chloro-, polymer with HCHO
Ethylene, chloro-, polymer with trioxane
Methacrylaldehyde, polymer with HCHO
Vinyl acetate, polymer with HCHO
RL: PREP (Preparation)
IT 27056-93-5, Acrylic acid, butyl ester, polymer with vinyl propionate
(butyl ester polymerization, with HCHO or trioxane)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl compds.)
IT 79-10-7, Acrylic acid
(polymerization of (and acrylic acid derivs.), with HCHO or trioxane)

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DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1386644		19650122	FR 1964-961883	19640129 <--
			JP	19630129 <--

PRIORITY APPLN. INFO.: JP

ED Entered STN: 22 Apr 2001

AB The title products are prepared by polymerization of HCHO or mixts. of HCHO and a ketene in the presence of a metal chelate catalyst. Suitable chelates are derivs. of β-diketones and aromatic aldehydes, alone or in combination with ethylenediamine or hexamethylenediamine. Thus, a gaseous mixture of 0.1 g./min. HCHO and 0.01 g./min. CH₂=CO was passed into a solution of 0.01 g. Co triacetylacetonate in 400 ml. n-C₇H₁₆ under an atmospheric of N at 20-30°. When a mixture containing 30 g. HCHO had been added, the copolymer (I) was filtered, washed with MeOH and Me₂CO, and dried at 60° under reduced pressure. A 25 g. yield of I obtained in this way was compared with an HCHO homopolymer (II) produced under the same conditions. Heat stability, K222 (g./min. decomposed at 222°), inherent viscosity of a 0.5% solution in p-chlorophenol containing 2% α-pinene, m.p., and crease resistance of a 0.05 mm. film after aging for 7 days at 105° (as measured by the number of folds it would undergo without breaking) of I and II were, resp.: I, 0.5, 6.0, 163°, >1000; II, 1.0, 3.0, 168°, >1000. When I was acetylated, the resultant polymer had a K222 of 0.1 and a m.p. of 170°. Comparable homopolymers prepared by using Et₃Al and Et₂Zn as catalysts had inherent viscosities of 1.8-1.9, K222 values of 2.4-2.6, and crease resistances of 0. These polymers and copolymers have superior phys. properties even when a relatively impure monomer is employed as a raw material.

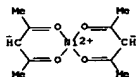
IC C08G
CC 45 (Synthetic High Polymers)
IT Polysymethylenes
(manufacture of)
IT Polymerization
(of formaldehyde, alone and with ketene, metal chelate catalysts in)

IT 3264-82-2, Nickel, bis(2,4-pentanedionato)- 13395-16-9, Copper, bis(2,4-pentanedionato)- 13476-99-8, Vanadium, tris(2,4-pentanedionato)- 13978-44-3, Copper, bis(2,4-hexanedionato)- 13928-07-9, Cobalt, bis[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato]- 13928-08-0, Cobalt, bis[4,4,4-trifluoro-1-(2-furyl)-1,3-butanedionato]- 13963-57-0, Aluminum, tris(2,4-pentanedionato)- 14024-61-4, Palladium, bis(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 14024-64-7, Titanium, oxobis(2,4-pentanedionato)- 14128-84-8, Copper, bis(1-phenyl-1,3-butanedionato)- 14167-15-8, Copper, [α,α'-(ethylenedinitrilo)di-o-cresolato(2-)]- 14167-22-7, Zinc, [α,α'-(ethylenedinitrilo)di-o-cresolato(2-)]- 14220-65-6, Cobalt, bis(salicylaldehydato)- 14325-56-5, Aluminum, tris(salicylaldehydato)- 14552-23-9, Copper, [α,α'-(hexamethylenedinitrilo)di-o-cresolato(2-)]- 14651-99-1, Cobalt, [α,α'-(hexamethylenedinitrilo)di-o-cresolato(2-)]- 14652-93-8, Titanium, tris(salicylaldehydato)- 14695-06-8, Chromium, tris(salicylaldehydato)- 14710-63-5, Copper, bis(o-formidophenolato)- 14780-88-2, Cadmium, bis(salicylaldehydato)- 14843-29-9, Vanadium, tris(salicylaldehydato)- 14880-85-4, Cadmium, [α,α'-(ethylenedinitrilo)di-o-cresolato(2-)]-

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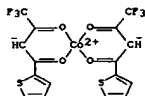
(ethylenedinitrilo)di-o-cresolato(2-))- 15170-37-7, Platinum, bis(2,4-pentanedionato)- 15246-70-5, Manganese, bis(salicylaldehydato)- 17524-05-9, Molybdenum, di-oxobis(2,4-pentanedionato)- 21679-31-2, Chromium, tris(2,4-pentanedionato)- (catalysts, in polymerization of HCHO)
 IT 14204-89-0, Manganese, tris(2,4-pentanedionato)- 21679-46-9, Cobalt, tris(2,4-pentanedionato)- (catalysts, in polymerization of HCHO, alone or with ketene)
 IT 14024-18-1, Iron, tris(2,4-pentanedionato)- (catalysts, in polymerization of HCHO, with ketene)
 IT 3002-24-2, 7,4-Hexanedione (complexes with Co and Cu, catalysts, in polymerization of formaldehyde)
 IT 94-93-9, o-Cresol, α,α' -(ethylenedinitrilo)di-(metal complexes, catalysts, in polymerization of formaldehyde)
 IT 50-00-0, Formaldehyde (polymerization of, alone and with ketene, metal chelates as catalysts in)
 IT 3264-82-2, Nickel, bis(2,4-pentanedionato)- 13395-16-9, Copper, bis(2,4-pentanedionato)- 13476-99-9, Vanadium, tris(2,4-pentanedionato)- 13078-44-9, Copper, bis(2,4-hexanedionato)- 13928-07-9, Cobalt, bis(4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato)- 13928-08-0, Cobalt, bis(4,4,4-trifluoro-1-(2-furyl)-1,3-butanedionato)- 14024-61-4, Palladium, bis(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 14024-64-7, Titanium, oxobis(2,4-pentanedionato)- 14128-84-8, Copper, bis(1-phenyl-1,3-butanedionato)- 14220-65-6, Cobalt, bis(salicylaldehydato)- 14652-93-8, Titanium, tris(salicylaldehydato)- 14695-06-8, Chromium, tris(salicylaldehydato)- 14760-88-2, Cadmium, bis(salicylaldehydato)- 14843-29-9, Vanadium, tris(salicylaldehydato)- 15170-57-7, Platinum, bis(2,4-pentanedionato)- 15246-70-5, Manganese, bis(salicylaldehydato)- 17524-05-9, Molybdenum, di-oxobis(2,4-pentanedionato)- 21679-31-2, Chromium, tris(2,4-pentanedionato)- (catalysts, in polymerization of HCHO)
 RN 3264-82-2 HCAPLUS
 CN Nickel, bis(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (5P-4-1)- (9CI) (CA INDEX NAME)



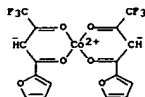
RN 13395-16-9 HCAPLUS
 CN Copper, bis(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (5P-4-1)- (9CI) (CA INDEX NAME)

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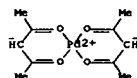
SN10/510,476 Page 139 of 244 STIC STN SEARCH



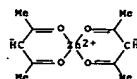
RN 13928-08-0 HCAPLUS
 CN Cobalt, bis(4,4,4-trifluoro-1-(2-furanyl)-1,3-butanedionato)- (9CI) (CA INDEX NAME)



RN 14024-61-4 HCAPLUS
 CN Palladium, bis(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (5P-4-1)- (9CI) (CA INDEX NAME)



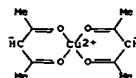
RN 14024-63-6 HCAPLUS
 CN Zinc, bis(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (T-4)- (9CI) (CA INDEX NAME)



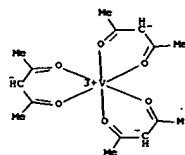
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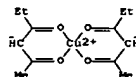
SN10/510,476 Page 138 of 244 STIC STN SEARCH



RN 13476-99-8 HCAPLUS
 CN Vanadium, tris(2,4-pentanedionato- $\kappa O, \kappa O'$)-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 13078-44-9 HCAPLUS
 CN Copper, bis(2,4-hexanedionato- $\kappa O, \kappa O'$)- (9CI) (CA INDEX NAME)

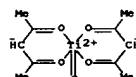


RN 13928-07-9 HCAPLUS
 CN Cobalt, bis(4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato- $\kappa O, \kappa O'$)- (9CI) (CA INDEX NAME)

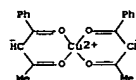
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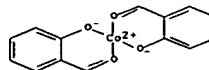
CN Titanium, oxobis(2,4-pentanedionato- $\kappa O, \kappa O'$)- (9CI) (CA INDEX NAME)



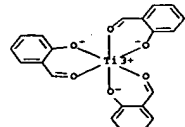
RN 14128-84-8 HCAPLUS
 CN Copper, bis(1-phenyl-1,3-butanedionato- $\kappa O, \kappa O'$)- (9CI) (CA INDEX NAME)



RN 14220-65-6 HCAPLUS
 CN Cobalt, bis(2-(hydroxy- κO)benzaldehydato- $\kappa O, \kappa O'$)-, (T-4)- (9CI) (CA INDEX NAME)

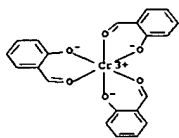


RN 14652-93-8 HCAPLUS
 CN Titanium, tris(2-hydroxybenzaldehydato- $\kappa O, \kappa O'$)- (9CI) (CA INDEX NAME)

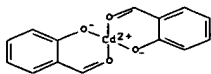


140

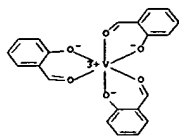
RN 14695-06-8 HCAPLUS
CN Chromium, tris(2-hydroxybenzaldehydato-O,O')-, (9CI) (CA INDEX NAME)



RN 14780-88-2 HCAPLUS
CN Cadmium, bis(2-hydroxybenzaldehydato-O,O')-, (T-4)- (9CI) (CA INDEX NAME)



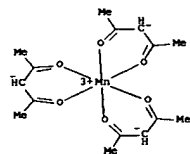
RN 14843-29-9 HCAPLUS
CN Vanadium, tris(2-hydroxybenzaldehydato-O,O')-, (9CI) (CA INDEX NAME)



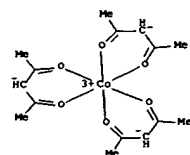
RN 15170-57-7 HCAPLUS
CN Platinum, bis(2,4-pentanedionato-KO,KO')-, (SP-4-1)- (9CI)
(CA INDEX NAME)

141

IT 14284-89-0, Manganese, tris(2,4-pentanedionato)-
21679-46-9, Cobalt, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO, alone or
with ketene)
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-KO,KO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)

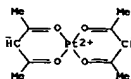


RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-KO,KO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)

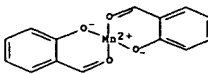


IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO, with ketene)
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-KO,KO')-, (OC-6-11)- (9CI) (CA
INDEX NAME)

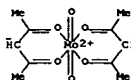
143



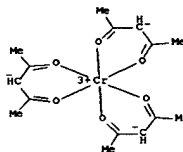
RN 15246-70-5 HCAPLUS
CN Manganese, bis(2-(hydroxy-KO)benzaldehydato-KO)- (9CI) (CA
INDEX NAME)



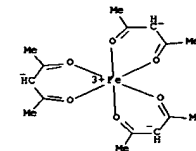
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-KO,KO')-, (OC-6-21)-
(9CI) (CA INDEX NAME)



RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-KO,KO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)



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IT 50-00-0, Formaldehyde
(polymerization of, alone and with ketene, metal chelates as
catalysts in)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

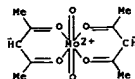
R2 C=O

L162 ANSWER 47 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:55823 HCAPLUS Full-text
DOCUMENT NUMBER: 66:55823
TITLE: Polymerization of trioxane and
formaldehyde by metal acetylacetonates
AUTHOR(S): Kennedy, Carl D.; Sorenson, Wayne R.; McClafflin,
Gifford G.
CORPORATE SOURCE: Petrochem. Res. Div., Continental Oil Co., Ponca City,
OK, USA
SOURCE: Polymer Preprints (American Chemical Society, Division
of Polymer Chemistry) (1965), 6(2), 667-73
CODEN: ACPPAY; ISSN: 0032-3934
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB The catalysis of trioxane polymerization by Mo dioxodiacetylacetonate
[MoO2(acac)2] was described. MoO2(acac)2 polymerizes trioxane both in the
melt and in solution. The effect of reaction parameters, such as catalyst
concentration and trioxane-solvent ratio, on the reaction was discussed. The
mechanism by which MoO2(acac)2 polymerizes trioxane appears more closely to
resemble olefin polymerization by a coordination mechanism than any recognized
cationic route. MoO2(acac)2 also polymerizes HCHO to high-mol.-weight poly-
(oxymethylene). Several other metal acetylacetonates also polymerize HCHO,
but not trioxane.
CC 35 (Synthetic High Polymers)
ST FORMALDEHYDES POLYMERIZATION; POLYMERIZATION; POLYMERIZATION
ACETYLACETONATES; ACETYLACETONATES POLYMERIZATION; POLYMERIZATION
POLYMERIZATION; POLYMERIZATION; POLYMERIZATION
IT 123-54-60, 2,4-Pentanedione, molybdenum complex
RL: CAT (Catalyst use); USES (Uses)

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(catalysts for polymerization of formaldehyde and s-trioxane)
 IT 17524-05-9
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts for polymerization of s-trioxane)
 IT 17524-05-9
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts for polymerization of s-trioxane)
 RN 17524-05-9 HCAPLUS
 CN Molybdenum, dioxobis(2,4-pentanedionato- κ^2 , κ^2)-, (OC-6-21)- (9CI) (CA INDEX NAME)



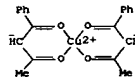
L162 ANSWER 48 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1967:411961 HCAPLUS Full-text
 DOCUMENT NUMBER: 67:11961
 TITLE: High-molecular-weight poly(oxyethylene)
 INVENTOR(S): Sugiura, Shotaro; Ishii, Takami
 PATENT ASSIGNEE(S): Ube Industries, Ltd.
 SOURCE: Jpn. Tokkyo Koho, 2 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 42000958	B4	19630118	JP	19630517 <--

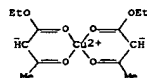
ED Entered STN: 12 May 1984
 AB The title compound is obtained by polymerizing anhydrous purified HCHO in the presence of metal chelate compds. of β -diketones of the general formula I, where M is a metal of Group I, II, or III of the Periodic Table, R1, R2, and R3 are H, C1-10 alkyl, aryl, cycloalkyl, alkaryl, alkoxy, chlenyl, furyl, silyl, or halogen, and n is 1-4. Thus, 10 g. anhydrous purified HCHO was added at 0.1 g./min. to 400 cc. anhydrous n-heptane containing 0.06 g. cupric acetylacetonate at 25°, the precipitate filtered, washed with MeOH, and dried in vacuo at 60° for 3 hrs. to give 10 g. white polymer, $[\eta] = 4.3$.
 IC C118.1
 CC 35 (Synthetic High Polymers)
 ST FORMALDEHYDE POLYMER; POLYOXYMETHYLENES CU
 CHELATES; ACETYLACETONE COPPER CHELATES; POLYMN CATALYSTS DIKETONES
 CHELATES; CHELATES DIKETONES POLYMN CATALYSTS; DIKETONES CHELATES POLYMN CATALYSTS; COPPER CHELATES ACETYLACETONE; CATALYSTS POLYMN DIKETONES CHELATES
 IT Polyoxymethylenes, preparation
 RL: PREP (Preparation)

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RN 14284-06-1 HCAPLUS
 CN Copper, bis[ethyl 3-(oxo- κ^2)butanoato- κ^2]- (9CI) (CA INDEX NAME)



=> d ibib ab hitstr 49-58
 YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' - CONTINUE?
 (Y)/N/y

L162 ANSWER 49 OF 71 USPATFULL on STN DUPLICATE 1
 ACCESSION NUMBER: 2005:172006 USPATFULL Full-text
 TITLE: Production of polyoxymethylene and suitable (II) catalysts
 INVENTOR(S): Goertz, Hans-Helmut, Freinsheim, GERMANY, FEDERAL REPUBLIC OF
 Luinstra, Gerrit, Mannheim, GERMANY, FEDERAL REPUBLIC OF
 Wielandt, Wolfram, Tübingen, GERMANY, FEDERAL REPUBLIC OF
 Henes, Michael, Jettenburg, GERMANY, FEDERAL REPUBLIC OF
 Lindner, Ekkehard, Tübingen, GERMANY, FEDERAL REPUBLIC OF

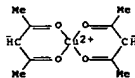
NUMBER	KIND	DATE
US 2005148755	A1	20050707
US 7064177	B2	20060620
US 2003-510477	A1	20030410 (10)
WO 2003-EP3745		20030410

PATENT INFORMATION:
 APPLICATION INFO.:
 PRIORITY INFORMATION: DE 2002-10215973 20020411 <--
 DOCUMENT TYPE: Utility

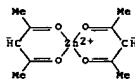
147

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(catalysts for, metal chelates as)
 IT Polymerization catalysts
 (metal chelates as, for formaldehyde)
 IT 141-97-9D, Acetoacetic acid, ethyl ester, copper complexes
 RL: USES (Uses)
 (catalysts for polymerization of formaldehyde)
 IT 13395-16-9 13963-57-0 14024-63-6 14128-84-8
 14284-06-1
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts for polymerization of formaldehyde)
 IT 123-54-6D, 2,4-Pentanedione, complexes with aluminum
 RL: USES (Uses)
 (copper and zinc, catalysts, for polymerization of formaldehyde)
 IT 13395-16-9 14024-63-6 14128-84-8
 14284-06-1
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, for polymerization of formaldehyde)
 RN 13395-16-9 HCAPLUS
 CN Copper, bis(2,4-pentanedionato- κ^2 , κ^2)-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 14024-63-6 HCAPLUS
 CN Zinc, bis(2,4-pentanedionato- κ^2 , κ^2)-, (T-4)- (9CI) (CA INDEX NAME)



RN 14128-84-8 HCAPLUS
 CN Copper, bis(1-phenyl-1,3-butanedionato- κ^2 , κ^2)- (9CI) (CA INDEX NAME)

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FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: NOVAK DRUCE DELUCA & QUIGG, LLP, 1300 EYE STREET NW, SUITE 400 EAST, WASHINGTON, DC, 20005, US
 NUMBER OF CLAIMS: 9
 EXEMPLARY CLAIM: 1
 LINE COUNT: 711
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A process is described for preparing polyoxymethylene by contacting a formaldehyde source with a catalyst of the formula I (Cp.sub.vML.sub.w).sup.m+Z.sub.m/n.sup.n- (I) where M is Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Re, Fe, Ru, Os, Co, Rh or Ir,

Cp is a cyclopentadienyl ligand C.sub.5H.sub.5(5-u)R.sub.1.sub.u, where u is from 0 to 5 and
 R.sub.1 is alkyl, alkenyl, aryl, heteroaryl, aralkyl, COOR.sub.2, COR.sub.2, CN or NO.sub.2, and
 R.sub.2 is H, alkyl, aryl or aralkyl, v is 1 or 2, each L is independently a nitrile, CO or a ligand displaceable by CO, w is an integer from 0 to 4, Z is an anion, and m and n are each independently an integer from 1 to 3.

IT 7439-88-5D, Iridium, cyclopentadienyl-containing complexes
 7439-89-6D, Iron, cyclopentadienyl-containing complexes
 7439-96-5D, Manganese, cyclopentadienyl-containing complexes
 7439-98-7D, Molybdenum, cyclopentadienyl-containing complexes
 7440-15-5D, Rhodium, cyclopentadienyl-containing complexes
 7440-16-6D, Rhodium, cyclopentadienyl-containing complexes
 7440-18-8D, Ruthenium, cyclopentadienyl-containing complexes
 7440-32-6D, Titanium, cyclopentadienyl-containing complexes
 7440-33-7D, Tungsten, cyclopentadienyl-containing complexes
 7440-47-3D, Chromium, cyclopentadienyl-containing complexes
 7440-48-4D, Cobalt, cyclopentadienyl-containing complexes
 7440-58-6D, Hafnium, cyclopentadienyl-containing complexes
 7440-62-2D, Vanadium, cyclopentadienyl-containing complexes
 7440-67-7D, Zirconium, cyclopentadienyl-containing complexes
 (cyclopentadienyl-containing catalysts for production of polyoxymethylene)
 RN 7439-88-5 USPATFULL
 CN Iridium (CA INDEX NAME)

IT 7439-89-6 USPATFULL
 CN Iron (CA INDEX NAME)

RN 7439-96-5 USPATFULL
 CN Manganese (CA INDEX NAME)

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RN 7439-98-7 USPATFULL
CN Molybdenum (CA INDEX NAME)

RN 7440-15-5 USPATFULL
CN Rhenium (CA INDEX NAME)

RN 7440-16-6 USPATFULL
CN Rhodium (CA INDEX NAME)

RN 7440-18-8 USPATFULL
CN Ruthenium (CA INDEX NAME)

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

RN 7440-33-7 USPATFULL
CN Tungsten (CA INDEX NAME)

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RN 25214-85-1 USPATFULL
CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 505-65-7
CMP C5 H10 O2



CM 2

CRN 110-89-3
CMP C3 H6 O3



RN 30525-89-4 USPATFULL
CN Paraformaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 50-00-0
CMP C H2 O

H2C=O

L162 ANSWER 50 OF 71 USPATFULL on STN DUPLICATE 2
ACCESSION NUMBER: 2003:226612 USPATFULL Full-text
TITLE: Methylenelactone synthesis in supercritical fluids
INVENTOR(S): Manzer, Leo E., Wilmington, DE, UNITED STATES
Hutchenson, Keith W., Lincoln University, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003158425	A1	20030821
	US 6649776	B2	20031118
APPLICATION INFO.:	US 2003-337542	A1	20030107 (10)

NUMBER	DATE
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RN 7440-47-3 USPATFULL
CN Chromium (CA INDEX NAME)

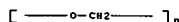
RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

RN 7440-58-6 USPATFULL
CN Hafnium (CA INDEX NAME)

RN 7440-62-2 USPATFULL
CN Vanadium (CA INDEX NAME)

RN 7440-67-7 USPATFULL
CN Zirconium (CA INDEX NAME)

IT 9002-81-7P, Trioxane homopolymer 25214-85-1P,
1,3-Dioxepane-trioxane copolymer 30525-89-4P, Paraformaldehyde
(production of polyoxymethylene in presence of cyclopentadienyl-containing
catalysts)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



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SN10/510,476 Page 152 of 244 STIC STN SEARCH

PRIORITY INFORMATION: US 2002-346361P 20020107 (60) <--
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT
RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417
LANCASTER PIKE, WILMINGTON, DE, 19805

NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
LINE COUNT: 568

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Alpha-methylenelactones are produced from butyrolactone and valerolactone by the addition of formaldehyde in a supercritical fluid in the presence of a catalyst and a phase transfer agent.

IT 7439-89-6, Iron, uses 7440-15-5, Rhenium, uses 7440-33-7, Tungsten, uses 7440-47-3, Chromium, uses (cocatalyst: in methylenation catalyst systems for the preparation of α -methylenelactones from formaldehydes and lactones in supercrit. fluids)

RN 7439-89-6 USPATFULL
CN Iron (CA INDEX NAME)

RN 7440-15-5 USPATFULL
CN Rhenium (CA INDEX NAME)

RN 7440-33-7 USPATFULL
CN Tungsten (CA INDEX NAME)

RN 7440-47-3 USPATFULL
CN Chromium (CA INDEX NAME)

IT 9002-81-7, Formaldehyde homopolymer 30525-89-4, Paraformaldehyde (methylenation process and catalyst systems for the preparation of α -methylenelactones from formaldehydes and lactones in supercrit.

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(fluids)
 RN 9002-81-7 USPATFULL
 CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)

[0-CH2]

RN 30525-89-4 USPATFULL
 CN Paraformaldehyde (9CI) (CA INDEX NAME)

CH 1

CRN 50-00-0
 CMF C H2 O

RZ C=O

L162 ANSWER 51 OF 71 USPATFULL on STN
 ACCESSION NUMBER: 2006:36906 USPATFULL Full-text
 TITLE: Thermal control interface coatings and pigments
 INVENTOR(S): Coombs, Paul G., Santa Rosa, CA, UNITED STATES
 Markantes, Charles T., Santa Rosa, CA, UNITED STATES
 Phillips, Roger W., Santa Rosa, CA, UNITED STATES
 PATENT ASSIGNEE(S): JDS Uniphase Corporation, San Jose, CA, UNITED STATES
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6997981	B1	20060214
APPLICATION INFO.:	US 2002-152593		20020520 (10) <--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Lorengo, J. A.		
ASSISTANT EXAMINER:	Manlove, S. S.		
LEGAL REPRESENTATIVE:	Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	26 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	1322		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The invention provides an optical structure with low chroma and brightness in the visible region and low emissivity in the infrared region. The optical structure includes an interference structure having an infrared reflective layer and an infrared absorbing thin film layer. These layers are in turn separated by a thin film spacer of a dielectric or semiconductor material. The reflectivity and transmission of the layers are selectively controlled through the thickness of the layers such that the visual reflectivity and color is independent of the infrared properties of the absorber and reflector layers.

IT 7439-89-6, Iron, uses 7439-98-7, Molybdenum, uses
 7440-02-0, Nickel, uses 7440-32-6, Titanium, uses

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(pigments for optical interference structure)
 RN 9002-81-7 USPATFULL
 CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)

[0-CH2]

IT 7439-88-5, Iridium, uses 7440-05-3, Palladium, uses
 7440-06-4, Platinum, uses 7440-15-5, Rhenium, uses
 7440-31-5, Tin, uses 7440-48-6, Cobalt, uses
 7440-50-8, Copper, uses
 (reflector layer; thermal control interface coatings and pigments for optical interference structure)
 RN 7439-88-5 USPATFULL
 CN Iridium (CA INDEX NAME)

RN 7440-05-3 USPATFULL
 CN Palladium (CA INDEX NAME)

RN 7440-06-4 USPATFULL
 CN Platinum (CA INDEX NAME)

RN 7440-15-5 USPATFULL
 CN Rhenium (CA INDEX NAME)

RN 7440-31-5 USPATFULL
 CN Tin (CA INDEX NAME)

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7440-33-7, Tungsten, uses 7440-47-3, Chromium, uses
 (absorber layer; thermal control interface coatings and pigments for optical interference structure)
 RN 7439-89-6 USPATFULL
 CN Iron (CA INDEX NAME)

RN 7439-98-7 USPATFULL
 CN Molybdenum (CA INDEX NAME)

RN 7440-02-0 USPATFULL
 CN Nickel (CA INDEX NAME)

RN 7440-32-6 USPATFULL
 CN Titanium (CA INDEX NAME)

RN 7440-33-7 USPATFULL
 CN Tungsten (CA INDEX NAME)

RN 7440-47-3 USPATFULL
 CN Chromium (CA INDEX NAME)

IT 9002-81-7, Formaldehyde polymer
 (optical structure base; thermal control interface coatings and

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RN 7440-48-4 USPATFULL
 CN Cobalt (CA INDEX NAME)

RN 7440-50-8 USPATFULL
 CN Copper (CA INDEX NAME)

L162 ANSWER 52 OF 71 USPATFULL on STN
 ACCESSION NUMBER: 2005:293441 USPATFULL Full-text
 TITLE: Production of polyoxymethylene and suitable(III) catalysts
 INVENTOR(S): Luinstra, Gerrit, Mannheim, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005255990	A1	20051117
APPLICATION INFO.:	US 2003-510476	A1	20030410 (10)
	WO 2003-EP3744		20030410
			20041007 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2002-10215976	20020411 <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	NOVAK DRUCE DELUCA & QUIGG, LLP, 1300 EYE STREET NW, SUITE 400 EAST, WASHINGTON, DC, 20005, US	
NUMBER OF CLAIMS:	1	
EXEMPLARY CLAIM:	1	
LINE COUNT:	560	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A process is described for preparing polyoxymethylene by contacting a formaldehyde source with a catalyst of the formula I ##STR1## where M is TiO, ZrO, HfO, VO, CrO.sub.2, MoO.sub.2, WO.sub.2, MnO.sub.2, ReO.sub.2, Fe, Ru, Co, Rh, Ir, Ni, Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO. R.sub.1, R.sub.2 and R.sub.3 are independently a radical which is selected from H, alkyl, aryl and aralkyl and the radical may be partly or fully halogenated; Z is an anion; and n is 1 or 2.

IT 7439-88-5D, Iridium, 1,3-diketonate complexes 7439-89-6D, Iron, 1,3-diketonate complexes 7439-92-1D, Lead, 1,3-diketonate complexes 7439-96-5D, Manganese, 1,3-diketonate complexes 7439-97-6D, Mercury, 1,3-diketonate complexes 7439-98-7D, Molybdenum, 1,3-diketonate complexes 7440-02-0D, Nickel, 1,3-diketonate complexes 7440-05-3D

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, Palladium, 1,3-diketonate complexes 7440-06-6D, Platinum, 1,3-diketonate complexes 7440-15-5D, Rhenium, 1,3-diketonate complexes 7440-16-6D, Rhodium, 1,3-diketonate complexes 7440-18-8D, Ruthenium, 1,3-diketonate complexes 7440-31-5D, Tin, 1,3-diketonate complexes 7440-32-6D, Titanium, 1,3-diketonate complexes 7440-33-7D, Tungsten, 1,3-diketonate complexes 7440-43-9D, Cadmium, 1,3-diketonate complexes 7440-47-3D, Chromium, 1,3-diketonate complexes 7440-48-4D, Cobalt, 1,3-diketonate complexes 7440-50-8D, Copper, 1,3-diketonate complexes 7440-58-6D, Hafnium, 1,3-diketonate complexes 7440-62-2D, Vanadium, 1,3-diketonate complexes 7440-66-6D, Zinc, 1,3-diketonate complexes 7440-67-7D, Zirconium, 1,3-diketonate complexes (diketonate metal complexes used as catalysts for production of polyoxymethylene)
 RN 7439-88-5 USPATFULL
 CN Iridium (CA INDEX NAME)

Ir
 RN 7439-89-6 USPATFULL
 CN Iron (CA INDEX NAME)

Pb
 RN 7439-92-1 USPATFULL
 CN Lead (CA INDEX NAME)

Pb
 RN 7439-96-5 USPATFULL
 CN Manganese (CA INDEX NAME)

Hg
 RN 7439-97-6 USPATFULL
 CN Mercury (CA INDEX NAME)

Rn

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Ru
 RN 7440-31-5 USPATFULL
 CN Tin (CA INDEX NAME)

Rn

RN 7440-32-6 USPATFULL
 CN Titanium (CA INDEX NAME)

Ti

RN 7440-33-7 USPATFULL
 CN Tungsten (CA INDEX NAME)

W

RN 7440-43-9 USPATFULL
 CN Cadmium (CA INDEX NAME)

Cd

RN 7440-47-3 USPATFULL
 CN Chromium (CA INDEX NAME)

Cr

RN 7440-48-4 USPATFULL
 CN Cobalt (CA INDEX NAME)

Co

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RN 7439-98-7 USPATFULL
 CN Molybdenum (CA INDEX NAME)

Mo

RN 7440-02-0 USPATFULL
 CN Nickel (CA INDEX NAME)

Ni

RN 7440-05-3 USPATFULL
 CN Palladium (CA INDEX NAME)

Pd

RN 7440-06-4 USPATFULL
 CN Platinum (CA INDEX NAME)

Pt

RN 7440-15-5 USPATFULL
 CN Rhenium (CA INDEX NAME)

Rh

RN 7440-16-6 USPATFULL
 CN Rhodium (CA INDEX NAME)

Rh

RN 7440-18-8 USPATFULL
 CN Ruthenium (CA INDEX NAME)

Ru

SN10/510,476 Page 160 of 244 STIC STN SEARCH

RN 7440-50-8 USPATFULL
 CN Copper (CA INDEX NAME)

Cu

RN 7440-58-6 USPATFULL
 CN Hafnium (CA INDEX NAME)

Hf

RN 7440-62-2 USPATFULL
 CN Vanadium (CA INDEX NAME)

V

RN 7440-66-6 USPATFULL
 CN Zinc (CA INDEX NAME)

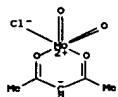
Zn

RN 7440-67-7 USPATFULL
 CN Zirconium (CA INDEX NAME)

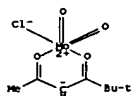
Zr

IT 611179-99-8P 611180-00-8P 611180-01-9P
 611180-02-0P 611180-03-1P 611180-04-2P
 611180-05-3P 611180-06-4P 611180-07-5P
 611180-08-6P 611180-09-7P 611180-10-0P
 611180-11-1P 611180-12-2P 611180-13-3P
 611180-14-4P
 (diketonate metal complexes used as catalysts for production of polyoxymethylene)
 RN 611179-99-8 USPATFULL
 CN Molybdenum, chlorodioxo(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)

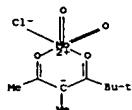
160



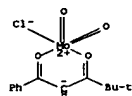
RN 611180-00-8 USPATFULL
CN Molybdenum, chloro(5,5-dimethyl-2,4-hexanedionato-κO, κO')dioxo- (9CI) (CA INDEX NAME)



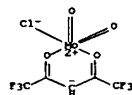
RN 611180-01-9 USPATFULL
CN Molybdenum, chlorodioxo(3,5,5-trimethyl-2,4-hexanedionato-κO, κO')- (9CI) (CA INDEX NAME)



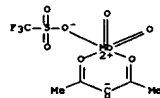
RN 611180-02-0 USPATFULL
CN Molybdenum, chloro(4,4-dimethyl-1-phenyl-1,3-pentanedionato-κO, κO')dioxo- (9CI) (CA INDEX NAME)



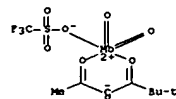
161



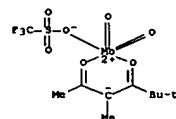
RN 611180-07-5 USPATFULL
CN Molybdenum, dioxo(2,4-pentanedionato-κO, κO')(trifluoromethanesulfonato-κO)- (9CI) (CA INDEX NAME)



RN 611180-08-6 USPATFULL
CN Molybdenum, (5,5-dimethyl-2,4-hexanedionato-κO, κO')dioxo(trifluoromethanesulfonato-κO)- (9CI) (CA INDEX NAME)

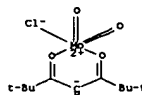


RN 611180-09-7 USPATFULL
CN Molybdenum, dioxo(trifluoromethanesulfonato-κO) (3,5,5-trimethyl-2,4-hexanedionato-κO, κO')- (9CI) (CA INDEX NAME)

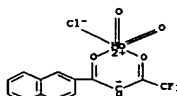


163

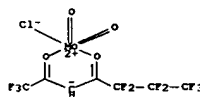
RN 611180-03-1 USPATFULL
CN Molybdenum, chlorodioxo(2,2,6,6-tetramethyl-3,5-heptanedionato-κO, κO')- (9CI) (CA INDEX NAME)



RN 611180-04-2 USPATFULL
CN Molybdenum, chlorodioxo[4,4,4-trifluoro-1-(2-naphthalenyl)-1,3-butanedionato-κO, κO']- (9CI) (CA INDEX NAME)



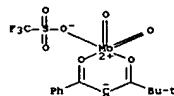
RN 611180-05-3 USPATFULL
CN Molybdenum, chloro(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-κO, κO')dioxo- (9CI) (CA INDEX NAME)



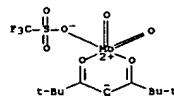
RN 611180-06-4 USPATFULL
CN Molybdenum, chloro(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-κO, κO')dioxo- (9CI) (CA INDEX NAME)

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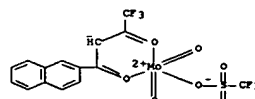
RN 611180-10-0 USPATFULL
CN Molybdenum, (4,4-dimethyl-1-phenyl-1,3-pentanedionato-κO, κO')dioxo(trifluoromethanesulfonato-κO)- (9CI) (CA INDEX NAME)



RN 611180-11-1 USPATFULL
CN Molybdenum, dioxo(2,2,6,6-tetramethyl-3,5-heptanedionato-κO, κO')(trifluoromethanesulfonato-κO)- (9CI) (CA INDEX NAME)

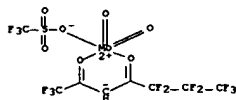


RN 611180-12-2 USPATFULL
CN Molybdenum, dioxo(trifluoromethanesulfonato-κO) (4,4,4-trifluoro-1-(2-naphthalenyl)-1,3-butanedionato-κO, κO')- (9CI) (CA INDEX NAME)

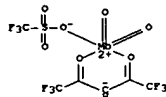


RN 611180-13-3 USPATFULL
CN Molybdenum, (1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-κO, κO')dioxo(trifluoromethanesulfonato-κO)- (9CI) (CA INDEX NAME)

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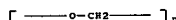
RN 611180-14-4 USPATFULL
CN Molybdenum, (1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-
KO, KO')dioxo(trifluoromethanesulfonato-KO)- (9CI) (CA
INDEX NAME)



IT 13637-68-8, Molybdenum dioxodichloride
(diketonate metal complexes used as catalysts for production of
polyoxymethylene)
RN 13637-68-8 USPATFULL
CN Molybdenum chloride oxide [MoCl2O2], (T-4)- (9CI) (CA INDEX NAME)



IT 9002-81-7P, Poly(oxymethylene) 25214-85-1P,
1,3-Dioxepane-trioxane copolymer 30525-89-4P, Paraformaldehyde
(production of polyoxymethylene in presence of diketonate metal complexes)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



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SN10/510,476 Page 167 of 244 STIC STN SEARCH

RELATED APPL. INFO.: Continuation of Ser. No. WO 2002-EP14290, filed on 16
Dec 2002, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2001-10163331	20011221
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR, PHILADELPHIA, PA, 19103	

NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
LINE COUNT: 3673

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to support-fixed bleaching catalyst(s) suitable or the catalysis of peroxide compounds, characterized in that the support-fixed bleaching catalyst(s) is/are covalently bonded to a support by means of at least one organic ligand of the bleaching catalyst. The bleaching catalyst(s) form(s) a complex with at least one transition metal. The invention further relates to support-fixed bleaching catalysts for the catalysis of peroxide compounds, where at least one ligand, covalently bonded to a support, is a transition-metal-free ligand, which chelates with transition metal, derived from another source, preferably from the bleaching composition and/or added water and thus forms the complex with a transition metal.

IT 7439-98-7DP, Molybdenum, complexes with reaction products of polymers and amine ligands 7440-18-8DP, Ruthenium, complexes with reaction products of polymers and amine ligands 7440-32-6DP, Titanium, complexes with reaction products of polymers and amine ligands 7440-48-4DP, Cobalt, complexes with reaction products of polymers and amine ligands 7440-50-8DP, Copper, complexes with reaction products of polymers and amine ligands 7440-62-2DP, Vanadium, complexes with reaction products of polymers and amine ligands 9002-81-7DP, Polyformaldehyde, reaction products with amines, transition metal complexes (polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)

RN 7439-98-7 USPATFULL
CN Molybdenum (CA INDEX NAME)

RU

RN 7440-18-8 USPATFULL
CN Ruthenium (CA INDEX NAME)

RU

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

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RN 25214-85-1 USPATFULL
CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CH 1
CRN 505-65-7
CHF C5 H10 O2



CH 2
CRN 110-88-3
CHF C3 H6 O3



RN 30525-89-4 USPATFULL
CN Paraformaldehyde (9CI) (CA INDEX NAME)

CH 1
CRN 50-00-0
CHF C H2 O

H2 C=O

1162 ANSWER 53 OF 71 USPATFULL on STN
ACCESSION NUMBER: 2004:33549 USPATFULL Full-text
TITLE: Support-fixed bleaching catalyst complex compounds suitable as catalysts for peroxygen compounds
INVENTOR(S): Gentschev, Pavel, Dusseldorf, GERMANY, FEDERAL REPUBLIC OF
Doring, Steve, Dusseldorf, GERMANY, FEDERAL REPUBLIC OF
Breyer, Jacques, Heusden-Destelbergen, BELGIUM
Machin, Antonio, Barcelona, SPAIN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004266641	A1	20041230
APPLICATION INFO.:	US 2004-873071	A1	20040621 (10)

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TI

RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

CO

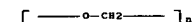
RN 7440-50-8 USPATFULL
CN Copper (CA INDEX NAME)

CU

RN 7440-62-2 USPATFULL
CN Vanadium (CA INDEX NAME)

V

RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



1162 ANSWER 54 OF 71 USPATFULL on STN
ACCESSION NUMBER: 2004:151018 USPATFULL Full-text
TITLE: Engineering of material surfaces
INVENTOR(S): Shastri, Venkatram P., Lower Gwynedd, PA, UNITED STATES
Chen, I-Wei, Swarthmore, PA, UNITED STATES
Choi, Hoon, Bryn Mawr, PA, UNITED STATES
Lipski, Anna Marie, Philadelphia, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004115239	A1	20040617
APPLICATION INFO.:	US 2003-668484	A1	20030922 (10)
RELATED APPL. INFO.:	Continuation-in-part of Ser. No. US 2003-427242, filed on 1 May 2003, PENDING		

NUMBER	DATE
US 2004115239	20040617
US 2003-668484	20030922

168

PRIORITY INFORMATION: US 2002-411871P 20020920 (60) <--
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: CAESAR, RIVISE, BERNSTEIN,, COHEN & POKOTILOV, LTD.,
12TH FLOOR, SEVEN PENN CENTER, 1635 MARKET STREET,
PHILADELPHIA, PA, 19103-2212
52
NUMBER OF CLAIMS: 1
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 1345
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides a device having a surface and a functional layer associated with the surface, where the functional layer includes particles having a structure substituted with a functional group, where the functional group is adapted to modify a property of the device, the device is sufficiently biocompatible for application to a multicellular organism and the particles have an average diameter of about 5 nm to about 10 microns.
IT 7440-02-0, Nickel, biological studies 7440-32-6,
Titanium, biological studies 7440-48-4, Cobalt, biological studies 9002-81-7, Poly(oxyethylene)
(medical device having surface and functional layer associated with the surface)
RN 7440-02-0 USPATTFULL
CN Nickel (CA INDEX NAME)

NI
RN 7440-32-6 USPATTFULL
CN Titanium (CA INDEX NAME)

VI
RN 7440-48-4 USPATTFULL
CN Cobalt (CA INDEX NAME)

CA
RN 9002-81-7 USPATTFULL
CN Poly(oxyethylene) (9CI, 9CI) (CA INDEX NAME)

[— o—CN2—]_n

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CM 2
CRN 110-88-3
CMF C3 H6 O3



IT 7440-66-6, Zinc, processes
(extractable alloying component; porous shaped metal alloy fixed-bed catalyst free of α -alumina for hydrogenation)
RN 7440-66-6 USPATTFULL
CN Zinc (CA INDEX NAME)

NI

IT 7439-89-6, Iron, processes 7439-98-7, Molybdenum, processes 7440-02-0, Nickel, processes 7440-32-6, Titanium, processes 7440-47-3, Chromium, processes 7440-48-4, Cobalt, processes 7440-50-8, Copper, processes
(porous shaped metal alloy fixed-bed catalyst free of α -alumina for hydrogenation)
RN 7439-89-6 USPATTFULL
CN Iron (CA INDEX NAME)

VI

RN 7439-98-7 USPATTFULL
CN Molybdenum (CA INDEX NAME)

NI

RN 7440-02-0 USPATTFULL

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L162 ANSWER 55 OF 71 USPATTFULL on STN
ACCESSION NUMBER: 2004:95232 USPATTFULL Full-text
TITLE: Shaped metal fixed-bed catalyst, and a process for its preparation and its use
Sauer, Jörg, Dülmen, GERMANY, FEDERAL REPUBLIC OF
Haas, Thomas, Frankfurt, GERMANY, FEDERAL REPUBLIC OF
Keller, Bruno, Wackernheim, GERMANY, FEDERAL REPUBLIC OF
Freund, Andreas, Gelnhausen, GERMANY, FEDERAL REPUBLIC OF
Burkhardt, Werner, Brachtal, GERMANY, FEDERAL REPUBLIC OF
Michelchen, Dietrich, Erlensee, GERMANY, FEDERAL REPUBLIC OF
Berweiler, Monika, Maintal, GERMANY, FEDERAL REPUBLIC OF

NUMBER	KIND	DATE
US 2004072686	A1	20040415
US 2001-988390	A1	20011119 (9)

PATENT INFORMATION: US 2004072686 A1 20040415
APPLICATION INFO.: US 2001-988390 A1 20011119 (9)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-81568, filed on 19 May 1998, GRANTED, Pat. No. US 6337300

NUMBER	DATE
DE 1997-19721897	19970526

PRIORITY INFORMATION: DE 1997-19721897 19970526 <--
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SMITH, GAMBRELL & RUSSELL, LLP, 1850 M STREET, N.W.,
SUITE 800, WASHINGTON, DC, 20036
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
LINE COUNT: 564

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A shaped metal fixed-bed catalyst is disclosed which is made from at least one catalyst alloy formed of a catalyst metal and an extractable alloying component. The catalyst is activated in an outer layer with a thickness of 0.1 to 2.0 mm, starting from the surface, by complete or partial extraction of the extractable alloying component. The catalyst may also contain promoters. The catalyst is distinguished from known catalysts in that it is formed exclusively of the catalyst alloy and is free of α -alumina oxide, and has a total pore volume of 0.1 to 0.6 ml/g and a bulk density lower than 2.2 kg/l. The catalyst is used for hydrogenation, dehydrogenation and hydrogenolysis reactions.
IT 25214-85-1, Ultraform N2320
(Ultraform N2320, pore-former; porous shaped metal alloy fixed-bed catalyst free of α -alumina for hydrogenation)
RN 25214-85-1 USPATTFULL
CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1
CRN 505-65-7
CMF C5 H10 O2

170

CN Nickel (CA INDEX NAME)

NI

RN 7440-32-6 USPATTFULL
CN Titanium (CA INDEX NAME)

VI

RN 7440-47-3 USPATTFULL
CN Chromium (CA INDEX NAME)

CR

RN 7440-48-4 USPATTFULL
CN Cobalt (CA INDEX NAME)

CA

RN 7440-50-8 USPATTFULL
CN Copper (CA INDEX NAME)

CU

L162 ANSWER 56 OF 71 USPATTFULL on STN
ACCESSION NUMBER: 93:42574 USPATTFULL Full-text
TITLE: Central hubs for flexible magnetic data discs formed of magnetically soft polyacetal compositions
Hughes, Patrick M., Clinton, NJ, United States
Hoechst Celanese Corporation, Somerville, NJ, United States (U.S. corporation)
INVENTOR(S):
PATENT ASSIGNEE(S):

NUMBER	KIND	DATE
US 5214555		19930525
US 1991-683953		19910412 (7)

PATENT INFORMATION: US 5214555 19930525 <--
APPLICATION INFO.: US 1991-683953 19910412 (7) <--
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted

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SN10/510,476 Page 173 of 244 STIC STN SEARCH

PRIMARY EXAMINER: Wolff, John H.
LEGAL REPRESENTATIVE: Nixon & Vanderhye
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 540

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Flexible sheet-like magnetic discs (so-called "floppy discs") are provided with a central hub formed of a magnetically soft polyacetal composition. The polyacetal composition necessarily includes a polyacetal resin and elemental iron particles homogeneously dispersed throughout the polyacetal resin in an amount sufficient to impart the desired soft magnetic properties to the inherently nonmagnetic polyacetal base resin. The polyacetal compositions of this invention are injection-moldable so that central hubs for flexible magnetic discs can be rapidly and economically produced.

IT 9002-81-7, Poly(oxyethylene)

(magnetically soft compns. from iron powder and, for magnetic disks)

RN 9002-81-7 USPATFULL

CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)

[————O—C82———]_a

IT 7439-89-6, Iron, uses

(magnetically soft compns. from polyacetals and powder of, for magnetic disks)

RN 7439-89-6 USPATFULL

CN Iron (CA INDEX NAME)

L162 ANSWER 57 OF 71 USPATFULL on STN

ACCESSION NUMBER: 93:14317 USPATFULL Full-text

TITLE: Production of preforms from ceramic or metallic fibers
INVENTOR(S): Bittler, Knut, Speyer, Germany, Federal Republic of
Ter Maat, Johan H. H., Mannheim, Germany, Federal Republic of
Steinzel, Hans-Josef, Dannstadt-Schauernheim, Germany, Federal Republic of

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Ludwigshafen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5188782		19930223	--
APPLICATION INFO.:	US 1990-596543		19901003 (7)	--

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 1989-3935276	19891024	--
	DE 1990-4003219	19900203	--

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SN10/510,476 Page 175 of 244 STIC STN SEARCH

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4957677		19900918	--
APPLICATION INFO.:	US 1988-244106		19880914 (7)	--

	NUMBER	DATE	
PRIORITY INFORMATION:	JP 1987-311731	19871209	--
	JP 1987-311732	19871209	--
	JP 1988-112114	19880509	--

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Silbaugh, Jan H.
ASSISTANT EXAMINER: Timm, Catherine
LEGAL REPRESENTATIVE: Obion, Spivak, McClelland, Maier & Neustadt
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 875

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for producing a composite laminate comprising an insert part and an injection-molded resin part by coating the insert part with a primer comprising a copolymer aqueous emulsion having a glass transition point of not higher than 20° C. which is obtained by emulsion polymerization of a monomer mixture consisting mainly of (a) from 35 to 75% by weight of an alkyl acrylate having from 1 to 8 carbon atoms in the alkyl moiety thereof, (b) from 10 to 50% by weight of an alkyl methacrylate having from 1 to 4 carbon atoms in the alkyl moiety thereof, (c) up to 15% by weight of styrene and/or acrylonitrile, the sum of the (b) and (c) components ranging from 15 to 55% by weight, (d) up to 5% by weight of a vinyl monomer selected from the group consisting of an α,β -unsaturated acid or an anhydride thereof, 2-hydroxyethyl (meth)acrylate, 2-hydroxypropyl (meth)acrylate, (meth)acrylamide, and methylol(meth)acrylamide, and (e) up to 30% by weight of other vinyl monomer(s), drying the primer, inserting the insert part into a cavity of an injection mold, injecting a molten resin into the cavity to thereby unite the insert part and the injected resin molded part into one body. The composite laminate is resistant to thermal shocks or electrical shocks.

IT 7440-66-6, Zinc, uses and miscellaneous

(laminates with acetal polymers, acrylate emulsion adhesives for)

RN 7440-66-6 USPATFULL

CN Zinc (CA INDEX NAME)

IT 25214-85-1, Ultraform N 2320

(molding and lamination of, with metals, acrylate emulsion adhesives for)

RN 25214-85-1 USPATFULL

CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 505-65-7

CMP C5 H10 O2

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SN10/510,476 Page 174 of 244 STIC STN SEARCH

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Derrington, James
LEGAL REPRESENTATIVE: Keil & Weinkauff
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 196

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Preforms are produced from ceramic and/or metallic fibers by injection molding or extruding a mixture containing the fibers and a thermoplastic binder, said thermoplastic binder being polyoxymethylene, which after the shaping is removed by treatment in a gaseous acid-containing atmosphere or in a gaseous BF₃·sub.3 -containing atmosphere.

IT 9002-81-7, Polyoxymethylene

(binder, for ceramic and metallic fibers, for molded products and binder removal in acidic gas atmospheric)

RN 9002-81-7 USPATFULL

CN Poly(oxyethylene) (8CI, 9CI) (CA INDEX NAME)

[————O—C82———]_a

IT 7439-89-6, Iron, uses and miscellaneous 7440-32-6,

Titanium, uses and miscellaneous
(fibers, molding of, with polyoxymethylene binder, for shaped articles by binder removal in acidic gas atmospheric)

RN 7439-89-6 USPATFULL

CN Iron (CA INDEX NAME)

RN 7440-32-6 USPATFULL

CN Titanium (CA INDEX NAME)

L162 ANSWER 58 OF 71 USPATFULL on STN

ACCESSION NUMBER: 90:73243 USPATFULL Full-text

TITLE: Process for producing composite laminate comprising insert part and injection-molded part
INVENTOR(S): Katoh, Naoyuki, Yokkaichi, Japan
Aoki, Masahiro, Yokkaichi, Japan
Tsukamoto, Takao, Yokkaichi, Japan

PATENT ASSIGNEE(S): Mitsubishi Yuka Soudische Co., Ltd., Yokkaichi, Japan
(non-U.S. corporation)

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CM 2

CRN 110-88-3
CMP C3 H6 O3



-> d i a l l a b e q t e c h a b e x 59-69

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, ENBASE' - CONTINUE?
(Y)/N:y

L162 ANSWER 59 OF 71 WPIX COPYRIGHT 2007

THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-502382 [55] WPIX

DOC. NO. CPI: C2001-151021 [55]

TITLE: Composition for polymerization of olefins comprises metallocene and second metal compound based on bidentate ligands containing heterocycle moieties

DERIVENT CLASS: A17; A18; E11; E12
INVENTOR: ERICKSON K A; KAROL F J; KWACK T H; MAWSON S; MURRAY R E; SCHRECK D J; SZUL J F

PATENT ASSIGNEE: (ERIC-I) ERICKSON K A; (KARO-I) KAROL F J; (KWAC-I) KWACK T H; (MAWS-I) MAWSON S; (MURR-I) MURRAY R E; (SCHR-I) SCHRECK D J; (SZUL-I) SZUL J F; (UNVN-C) UNIVATION TECHNOLOGIES LLC

COUNTRY COUNT: 30

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
WO 2001040325	A1 20010607 (200155)	EN	50[3]		C08F010-00
AU 2000077499	A 20010612 (200159)	EN			--
US 6340730	B1 20020122 (200208)	EN			C08F004-44
US 20020107341	A1 20020808 (200254)	EN			C08F004-44
BR 2000016197	A 20020813 (200262)	PT			--
EP 1252199	A1 20021030 (200279)	EN			C08F010-00
JP 2003515628	W 20030507 (200331)	JA	55		C08F004-642
US 6566462	B2 20030520 (200336)	EN			C08F004-44
AU 775512	B2 20040805 (200474)	EN			--

176

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001040325 A1		WO 2000-0527235	20001003
US 6340730 B1		US 1999-455883	19991206
US 20020107341 A1 Div Ex		US 1999-455883	19991206
US 6566462 B2 Div Ex		US 1999-455883	19991206
AU 2000077499 A		AU 2000-77499	20001003
AU 775512 B2		AU 2000-77499	20001003
BR 2000016197 A		BR 2000-16197	20001003
EP 1252199 A1		EP 2000-967279	20001003
BR 2000016197 A		WO 2000-0527235	20001003
EP 1252199 A1		WO 2000-0527235	20001003
JP 2003515628 W		WO 2000-0527235	20001003
JP 2003515628 W		JP 2001-341079	20001003
US 20020107341 A1		US 2001-974193	20011010
US 6566462 B2		US 2001-974193	20011010

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 775512 B2	Previous Publ	AU 2000077499 A
US 6566462 B2	Div ex	US 6340730 B1
AU 2000077499 A	Based on	WO 2001040325 A
BR 2000016197 A	Based on	WO 2001040325 A
EP 1252199 A1	Based on	WO 2001040325 A
JP 2003515628 W	Based on	WO 2001040325 A
AU 775512 B2	Based on	WO 2001040325 A

PRIORITY APPLN. INFO: US 1999-455883 19991206
US 2001-974193 20011010

INT. PATENT CLASSIF.:

MAIN: C08F0004-642
IPC RECLASSIF.: C07D0013-00 [I,C]; C07D0013-36 [I,A]; C07D0013-38 [I,A];
C07F0017-00 [I,A]; C07F0017-00 [I,C]; C07F0007-00 [I,A];
C07F0007-00 [I,C]; C08F0010-00 [I,A]; C08F0010-00 [I,C];
C08F0210-00 [I,C]; C08F0210-16 [I,A]; C08F0004-00 [I,C];
C08F0004-16 [I,A]; C08F0004-44 [I,A]; C08F0004-642 [I,A];
C08F0004-659 [I,A]; C08F0004-6592 [I,A]

BASIC ABSTRACT:

WO 2001040325 A1 UPAB: 20060117
NOVELTY - A composition for the polymerization of olefins comprises a metallocene and a second metal compound based on bidentate ligands containing heterocyclic moieties.
DETAILED DESCRIPTION - A composition (C) comprises a metallocene and a second compound of formulae (2) $(\text{M}(\text{L})_2(\text{Y}))_2\text{Q}^n$ or $(\text{R}'\text{M}(\text{L})_2\text{Z}')_2\text{A}^n(\text{YJRM})_2\text{Q}^n$.
M = metal selected from Group IIIB - Va or lanthanide and actinide series (preferably Group IVB);
Q = mono-, bi- or trivalent anion and is bonded to M;
X and Y = carbon or a heteroatom and is bonded to M;
Z' = 1-0 non-hydrogen atoms and is bonded to X;
Z' = hydrocarbyl group, optionally including at least one heteroatom and is bonded to X;
t = 0 or 1;
q = 1 or 2;
n = oxidation state of M - q - 1, (M - q)/2 or (M - q)/3;
R = hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl or aryloxy radicals and at least two of R groups joined to form a cyclic moiety.

R = hydrogen, (cyclic)alkyl, alkenyl, alkynyl or aryl and at least two of R' groups may be joined to form a cyclic moiety;
n1 = 0 - 5.

At least one of X and Y is a heteroatom and Y is contained in a heterocyclic ring J, in which J comprises from 2 - 50 non-hydrogen atoms. When t is 1, A is a bridging group joined to at least one of X, Y or J. n is the oxidation state of M - q - 1 if Q is a monovalent anion, n is the oxidation state of (M - q)/2, if Q is a bivalent anion, or n is (the oxidation state of M - q)/3 if Q is a trivalent anion; optionally R' and R may be joined to A.
AN INDEPENDENT CLAIM is also included for the polymerization of olefins by reacting olefins with a catalyst system containing an activator and the composition (C).

USE - The composition (C) is used in solution, gas and/or slurry polymerization processes for the polymerization of olefins to produce polyolefins which are useful for preparation of films, molded articles, pipes, wire, cable coating and sheets.

ADVANTAGE - The processable polyethylene polymers obtained from a single reactor process have desirable processing, mechanical and optical properties.

MANUAL CODE: CPI: A02-A06E; A04-G01A; A10-B01; E05-E01; E05-F;
E05-G01; E05-J; E05-L01; E05-L03A; E05-M;
E05-P; E05-P; E05-Q

TECH

INORGANIC CHEMISTRY - Preferred Components: The metallocene comprises a transition metal compound of formulae (I) (II) or (L)p m'(Aq')b(Er)d (III).

M' = transition metal from Group IVb, Vb or Vlb;
L = optionally substituted pi-bonded ligand coordinated to M', optionally with at least one 1-20C hydrocarbyl substituent groups;
Q = O, NR, CR2 or S;
Y' = C or Si;
Z1 = -OR, -NR2, -CR3, -SR, -SiR3, -PR2, -H or optionally substituted aryl;
n' = 1 or 2;

A' = monovalent or divalent anionic group;
R = group containing carbon, silicon, nitrogen, oxygen, and/or phosphorus and at least one R' group may be attached to the L substituent;
T = bridging group selected from 1-10C alkylene or 1-10C arylene groups optionally substituted with carbon or heteroatom(s), germanium, silicon and alkyl phosphine;

m = 2 - 7;
L' = optionally substituted bulky ligand (preferably optionally substituted cyclopentadienyl, indenyl or fluorenyl group);
p = anionic charge of L';
a' = 1-3 (preferably 2);
A = ligand bonded to M and capable of inserting an olefin between M-A bond;

q' = anionic charge of Au
b = 1 - 4;
E = anionic leaving group;
r = anionic charge of E;
d = 1-4 such that (p + m') + (q' + b) + (r + d) is equal to the formal oxidation state of M.

When Q is -NR, then Z1 is -OR, -NR2, -SR, -SiR3, -PR2 and -H. A' is a univalent anionic group when n is 2 or A' is a divalent anionic group when n is 1. The two L' ligands are bridged together. The bridge is germanium, silicon, carbon, tin, lead, nitrogen, oxygen, sulfur, phosphorus, fluorine or chlorine.

The second metal compound is of the formulae (IV), (V) or (VI).
Ra and Rb = alkyl, aryl, heterocyclic group or H;
Rc and Rd = halogen, H, alkyl, aryl, alkenyl, alkynyl, arylalkyl, 1-20C

hydrocarbyl, amide, phosphides, sulfides, silylalkyls, diketonates, or carboxylates;
L = halides, alkyl or arylalkyl (preferably arylalkyl, especially benzyl). The activator is an alkyl aluminum compound, non-coordinating anion, non-coordinating group 13 metal or metalloid anion, a borane and/or borate or modified aluminum (preferably borane, borate or aluminate, especially at least one of tri-(n-butyl) ammonium tetrakis (pentafluorophenyl) boron, triphenyl boron, triethyl boron, tri-n-butyl ammonium tetrabutylborate or triaryl borane).
The metallocene and second metal catalyst compounds are combined at molar ratios of 1:1000 - 1000:1 (preferably 1:99 - 99:1, more preferably 20:80 - 80:20, especially 30:70 - 70:30, particularly 40:60 - 60:40). Hydrogen is present in the reactor at a concentration of about 200 - 2000 ppm.
The metallocene plus the second metal compound are combined with the activator in ratios of 1000:1 - 0.5:1 (preferably 300:1 - 1:1, more preferably 150:1 - 1:1, especially 1:1 - 10:1).

ARX

SPECIFIC COMPOUNDS - Bis(1-methyl-3-n-butylcyclopentadienyl) zirconium dichloride, tetrahydroindenyl zirconium tris pivalate and indenylzirconiumtris pivalate are specifically claimed as the metallocenes.
N-(1-(2-pyridyl)-1-methylethyl) (1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl, N-(1-(2-pyridyl)-1-benzylethyl) (1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl, N-(1-(2-pyridyl)-1-vinyl) (1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl and N-(1-(2-pyridyl)-1-methylethyl) (1-N-2,6-diisopropylphenyl amido) (2-phenylmethyl-isopropyl)zirconium dibenzyl are specifically claimed as second metal compounds.

EXAMPLE - An ethylene hexene copolymer was produced in a gas phase reactor at 85 degreesC and 350 psig total reactor pressure having a water cooled heat exchanger. Ethylene, hexene, hydrogen and nitrogen were fed to the reactor at a rate of about 40 pounds per hour, 0.9 pounds per hour, 13 mpph and 21 - 8 PPH respectively. The production rate was about 21 PPH. A toluene solution containing 0.02 moles zirconium/liter (0.43:1 molar ratio of (1-(2-pyridyl)N-1-methylethyl) (1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl (catalyst A)/tetrahydroindenyl zirconium tris pivalate (catalyst B) was contacted with 1-hexene (0.20 PPH) and MMAO-3A (1.8 wt. % aluminum in 25% heptane/75% hexane solution) in-line prior to being passing through the injection nozzle into the fluidized bed. MMAO to catalyst was controlled so that the Al:Zr molar ratio was 300:1. Nitrogen was also fed to the injection nozzle as needed to maintain a stable average particle size. A bimodal molecular weight distribution polymer was obtained. - A comparative ethylene hexene copolymer was produced by the above method except that the feeding rate of ethylene, hexene and hydrogen was 43 pounds per hour, 1.1 pound per hour (0.5 kg/hr) and 15 mpph respectively. The production rate was about 22.5 PPH. A 0.02 moles/liter catalyst A in toluene solution was contacted with a cocatalyst solution of MMAO-3A in a continuous on-line fashion to obtain a unimodal molecular weight distribution polymer. - The test/comparative polymer had melt index (I2) (dg/min) of 0.45/0.23; density (g/cm3) of 0.9401/0.9298 and high molecular weight analyzed by size exclusion chromatography as 70/100.

L162 ANSWER 60 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 2001-137589 [14] WPIX
DOC. NO. CPI: C2001-040292 [14]
TITLE: Copolymer useful as an additive for fuels and lubricating oils is produced by contacting at least one approximately alpha-olefin and a masked aminoalkene with a metallocene catalyst and at least one co-catalyst
DERIVENT CLASS: A14; A17; A07; E11; E12; HD6; HD7
INVENTOR: REED W; WEATHERHEAD R H

PATENT ASSIGNEE: (BRPE-C) BP CHEM LTD
COUNTRY COUNT: 89

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000069921 A1	A1	20001123	(200114)	EN	28(0)	C08F0008-00
AU 2000044213 A	A	20001205	(200114)	EN		C08F0008-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000069921 A1		WO 2000-041615	20000426
AU 2000044213 A		AU 2000-44213	20000426

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000044213 A	Based on	WO 2000069921 A

PRIORITY APPLN. INFO: GB 1999-11242 19990515

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C08F0210-00 [N,C]; C08F0210-06 [N,A]; C08F0008-00 [I,A]; C08F0008-00 [I,C]

BASIC ABSTRACT:

WO 2000069921 A1 UPAB: 20050525
NOVELTY - A copolymer is produced by contacting at least one alpha-olefin containing three to five carbon atoms and a masked aminoalkene with a metallocene catalyst and at least one co-catalyst.
DETAILED DESCRIPTION - A copolymer is produced by: (a) contacting at least one 3-5C alpha-olefin, optionally ethylene and a masked aminoalkene with a metallocene catalyst of formula (C5H5Ar)n2M(2)Y (II), and at least one co-catalyst; and (b) optionally demasking the resulting copolymer to form an amine-functionalized copolymer. (I) is an unbridged metallocene and (II) is a meso form of the metallocene catalyst.

A = (5-n);
B = (5-n2);
E = (5-m);
R = H or alkyl;
M = titanium, hafnium or zirconium;
X = alkyl, halide or a trifluoromethyl sulfonate group;
n1 = 0 - 5;
n' = H, alkyl or an aryl substituent on the cyclopentadienyl ligand;
Z = H, X or aryl;
Y = X, 1,3-diketone or beta-ketoester;
m and n2 = 1 - 3.

provided that a single R' substituent on each cyclopentadienyl group when taken together, represent Si or C bridging group linking two cyclopentadienyl groups with Si or C bridging group is itself optionally substituted by at least one hydrogen atom and/or at least one 2-3C alkyl. AN INDEPENDENT CLAIM is also included for:
(1) a non-crystalline amine functionalized copolymer produced by the process;

(2) producing the copolymer by: (c) contacting at least one 3-5C alpha-olefin, optionally ethylene and a masked hydroxyalkene with at least one metallocene catalyst of formula (I) or (II) and at least one co-catalyst to

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AU 9951772 A
EP 1115759 A1
EP 1115759 A1
US 20010037005 A1 Cont of
JP 2002522575 W
JP 2002522575 W
JP 2001072275 A
KR 20010037005 A1

AU 1999-51772 19990728
EP 1999-936790 19990728
WO 1999-02467 19990728
WO 1999-02467 19990728
WO 1999-02467 19990728
JP 2000-563701 19990728
KR 2001-701531 20010205
US 2001-777014 20010206

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9951772 A	Based on	WO 2000008070 A
EP 1115759 A1	Based on	WO 2000008070 A
JP 2002522575 W	Based on	WO 2000008070 A

PRIORITY APPL. INFO: **CA 1998-17015 19980806**

INT. PATENT CLASSIF.:

MAIN: C08F004-642
IPC RECLASSIF.: C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0110-00 [N,C]; C08F0110-06 [N,A]; C08F0004-00 [I,C]; C08F0004-44 [I,A]; C08F0004-642 [I,A]; C08F0004-6592 [N,A]

BASIC ABSTRACT:

WO 2000008070 A1 UPAB: 20050410
NOVELTY - Catalyst system includes a metallocene and a cocatalyst comprising an aluminosilane and a group III metal alkyl compound having a least two carbon atoms.
DETAILED DESCRIPTION - Catalyst system includes a metallocene of formula (I) and a cocatalyst comprising an aluminosilane and a group III metal alkyl compound having at least two carbon atoms.

(RnCpH(5-m))(RnCpH(5-n))M(Z)Y (I)
CpH = cyclopentadienyl ligand;
R = alkyl or aryl substituent or 2 R₃ join to form a ring or R₃ in different CpH groups when taken together form a Si or C bridging group linking two CpH groups, the Si or C group optionally being substituted by H or 1-3C alkyl;
M = Hf, Zr or Ti;
Z and Y = H, halide, trifluoromethane sulfonate, 1,3-diketone, beta-ketoester, alkyl, or aryl; and
m, n = 0-5.

INDEPENDENT CLAIMS are also included for:
(A) a process for the preparation of pure terminally unsaturated polymers or copolymers of alpha-olefins or copolymers of alpha-olefins with ethylene, which comprises (co)polymerizing the alpha-olefin in the presence of the catalyst system;
(B) a process for controlling the molecular weight of terminally unsaturated atactic polymers or copolymers of alpha-olefins having a molecular weight of 300-500,000 using the catalyst system; and
(C) terminally unsaturated atactic polymers or copolymers of alpha-olefins having a number average molecular weight of 300-500,000 prepared by use of the catalyst system.

USE - The catalyst is used for preparing terminally unsaturated polyolefins which may further be derivatized to make products useful as fuel and lubricant additives, e.g. dispersants, wax modifiers, flow improvers, dispersant-viscosity index improvers or viscosity modifiers.
ADVANTAGE - The use of the group III metal compound allows for a reduction in the aluminosilane content in the cocatalyst. The (co)polymers formed from the catalyst system have low level of catalyst, cocatalyst, or support residues when compared with (co)polymers obtained by (co)polymerization using

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conventional catalyst/cocatalyst processes whether in slurry or dissolved form.
MANUAL CODE: CFI: A02-A06; A02-A07A; A04-G01A; E05-B02; E05-C02; E05-E02; E05-L01; E05-M; E05-M; H06-D; H07-G08; J04-E04

Member(0003)

ABEQ EP 1115759 A1 UPAB 20050410

NOVELTY - Catalyst system includes a metallocene and a cocatalyst comprising an aluminosilane and a group III metal alkyl compound having a least two carbon atoms.

DETAILED DESCRIPTION - Catalyst system includes a metallocene of formula (I) and a cocatalyst comprising an aluminosilane and a group III metal alkyl compound having at least two carbon atoms.

(RnCpH(5-m))(RnCpH(5-n))M(Z)Y (I)

CpH = cyclopentadienyl ligand;

R = alkyl or aryl substituent or 2 R₃ join to form a ring or R₃ in different CpH groups when taken together form a Si or C bridging group linking two CpH groups, the Si or C group optionally being substituted by H or 1-3C alkyl;

M = Hf, Zr or Ti;

Z and Y = H, halide, trifluoromethane sulfonate, 1,3-diketone, beta-ketoester, alkyl, or aryl; and

m, n = 0-5.

INDEPENDENT CLAIMS are also included for:

(A) a process for the preparation of pure terminally unsaturated polymers or copolymers of alpha-olefins or copolymers of alpha-olefins with ethylene, which comprises (co)polymerizing the alpha-olefin in the presence of the catalyst system;

(B) a process for controlling the molecular weight of terminally unsaturated atactic polymers or copolymers of alpha-olefins having a molecular weight of 300-500,000 using the catalyst system; and

(C) terminally unsaturated atactic polymers or copolymers of alpha-olefins having a number average molecular weight of 300-500,000 prepared by use of the catalyst system.

USE - The catalyst is used for preparing terminally unsaturated polyolefins which may further be derivatized to make products useful as fuel and lubricant additives, e.g. dispersants, wax modifiers, flow improvers, dispersant-viscosity index improvers or viscosity modifiers.

ADVANTAGE - The use of the group III metal compound allows for a reduction in the aluminosilane content in the cocatalyst. The (co)polymers formed from the catalyst system have low level of catalyst, cocatalyst, or support residues when compared with (co)polymers obtained by (co)polymerization using conventional catalyst/cocatalyst processes whether in slurry or dissolved form.

TECH

ORGANIC CHEMISTRY - Preferred Compounds: The aluminosilane is methyl aluminosilane. Th group III metal alkyl is a trialkyl aluminum compound, preferably triisobutylaluminum, or a trialkyl boron compound. The alpha-olefin includes propylene, 1-butene or 1-decene.

Preferred Composition: The ratio of the group III metal alkyl compound to the aluminosilane is 100:1 to 10:0.1. The ratio of the metal to aluminosilane is 1:1-1:2000, preferably 1:50-1:400.

INORGANIC CHEMISTRY - Preferred Catalyst: The metallocene and/or cocatalyst is supported by silica.

ABEQ

DEFINITIONS - Preferred Definitions: - R = alkyl; - M = Zr; and - Z and Y = halogen, trifluoromethane sulfonate, 1,3-diketone or beta-ketoester.

EXAMPLE - Propylene (1 L) was polymerized at 70 degreesC for 42 minutes using a catalyst comprising (a) triisobutylaluminum (4 mmoles), bis(1,3-dimethylcyclopentadienyl) zirconium dichloride (12.5 micromoles) and methylaluminosilane (1.5 micromoles). 242 g of polymer of vinylidene

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content more than 98%, Mn = 4100 and Mw/Mn 2.3 were obtained. In contrast, when the triisobutylaluminum was omitted it was necessary to include 12.4 micromoles of methylaluminosilane in order to produce 266 g of polymer (Mn = 2400, Mw/Mn = 2.0).

L162 ANSWER 63 OF 71

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2001-018897 [03] WPIX

DOC. NO. CFI: C2001-005470 [03]

TITLE: Transition metal compound for olefin polymerization

catalyst providing polyolefin with higher molecular weight and wider molecular weight distribution

Al7; A26; E11; E12

INVENTOR: SATO H; WAKABAYASHI Y; YOSHIDA O

PATENT ASSIGNEE: (TOYJ-C) TOYOTA CORP

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC		
JP 2000230011	A	20000822	(200103)*	JA	18[0]	C08F004-76	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2000230011 A		JP 1999-32579	19990210

PRIORITY APPL. INFO: **JP 1999-32579 19990210**

INT. PATENT CLASSIF.:

C07F0017-00 [I,A]; C07F0017-00 [I,C]; C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0004-00 [I,C]; C08F0004-642 [I,A]; C08F0004-659 [I,A]; C08F0004-6592 [I,A]; C08F0004-76 [I,A]

BASIC ABSTRACT:

JP 2000230011 A UPAB: 20050705

NOVELTY - A new transition metal compound consists of a Group 3, 4, 5, or 6 transition metal, a bidentate ligand consisting of two groups which are linked with another group, and two ligands selected from 1-20C hydrocarbon, hetero-atom containing hydrocarbon, substituted amino, or substituted alkoxy groups.

DETAILED DESCRIPTION - The new transition metal compound is of formula (I).

M = Group 3, 4, 5, or 6 transition metal;
L1 = formula (II);
A, B = Group 15 or 16 element, methylene, alkylidene, dialkylidene, imide, or substituted imide group;

L2 = formula (III);
L3 = -(C(R4)(R5))m-, -(Si(R4)(R5))m-, -(Ge(R4)(R5))m-, -(N(R4))m-, -(P(R4))m- or formulae (V)-(IX), crosslinking L1 and L2;
R1, R2 = H, 1-20C hydrocarbon, hetero-atom containing hydrocarbon, silyl having hydrocarbon or hetero-atom containing hydrocarbon groups, forming a ring by R1 and R2;

R3 = H, 1-20C hydrocarbon, hetero-atom containing hydrocarbon, silyl having hydrocarbon or hetero-atom containing hydrocarbon groups, forming a ring by itself;

R4, R5 = H, 1-20C hydrocarbon, hetero-atom containing hydrocarbon, silyl having hydrocarbon or hetero-atom containing hydrocarbon groups, forming a ring by R4 and R5;

m = 1-20.

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INDEPENDENT CLAIMS are included for

(i) a polyolefin manufacture method by homo- or co-polymerizing an olefin using a catalyst below; and

(ii) an olefin polymerization catalyst comprising:

(A) compound (I);

(B) an activating auxiliary catalyst, and/or

(C) an organometallic compound.

USE - (I) is used in an olefin polymerization catalyst.

ADVANTAGE - (I) provides an olefin polymerization catalyst which is used for cost-effective polyolefin production. Polyolefin (e.g., polyethylene) with a higher molecular weight and a wider molecular weight distribution can be obtained.

MANUAL CODE: CFI: A02-A06; A04-G01A; E05-B; E05-G; E05-H; E05-K; E05-L01; E05-L03A; E05-M; E05-M

ABEQ

EXAMPLE - The synthesis of (2,2-dimethyl-5-(2'-cyclopentadienylpropyl)-1,3-dioxan-4,6-dione (A) comprises placing cyclopentadienyl lithium (378mg) in a 100ml Schlenk, and adding 2,2-dimethyl-5-isopropylidene-1,3-dioxan-4,6-dione (917mg) to it at -75degreesC dissolved in 30ml THF. After raising the temperature of the reaction liquid to room temperature, 20ml ether and 10ml ethyl acetate are added and organic and aqueous layers are separated out. The organic layer is dried with anhydrous magnesium sulfate and the solvent is distilled off to give the target compound (A) (584mg).

The synthesis of (isopropylidene (cyclopentadienyl) (2,2-dimethyl-1,3-dioxan-4,6-dione-5-yl) (B) titanium bis (dimethylamide) (transition metal compound (I), comprises dissolving tetrakis(dimethylamino) titanium (140mg) in 10ml toluene under a nitrogen atmosphere and (A) (157mg) dissolved in 10ml toluene is added at -76degreesC. The reaction liquid is raised to room temperature, stirred for 7 hours and the solvent is dissolved off to give (B).

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WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN

1999-254208 [21] WPIX

DOC. NO. CFI: C1999-074274 [21]

TITLE: Catalysts system for preparing terminally unsaturated atactic (co)polymers of alpha olefin(s) - useful as fuel and lubricant additives, comprises metallocene complexes and containing ligands based on triflate, diketone or ketoesters

Al7; E11; E12; H06; H07

INVENTOR: DORER A; DORER B A; SHEAR C; WEATHERHEAD H; WEATHERHEAD R H

PATENT ASSIGNEE: (BRPE-C) BP CHEM LTD

COUNTRY COUNT: 25

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC		
WO 9905182	A1	19990204	(199921)*	EN	20[0]	C08F004-64	<--
EP 998500	A1	20000510	(200027)	EN		C08F004-64	<--
CN 1264392	A	20000823	(200063)	ZH		C08F004-64	<--
JP 2001510862	V	20010807	(200150)	JA	26	C08F004-64	<--
KR 2001021888	A	20010315	(200159)	KD		C08F004-64	<--
US 6509288	B1	20030121	(200309)	EN		B01J003-20	
EP 998500	B1	20040922	(200462)	EN			
DE 69826481	E	20041026	(200471)	DE			
DE 69826481	T2	20050929	(200568)	DE			
CN 1151178	C	20040526	(200617)	ZH			

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APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9905182 A1		WO 1998-02037 19980710	
CN 1264392 A		CH 1998-007355 19980710	
DE 69826481 E		DE 1998-626481 19980710	
DE 69826481 T2		DE 1998-626481 19980710	
EP 998500 A1		EP 1998-932416 19980710	
EP 998500 B1		EP 1998-932416 19980710	
DE 69826481 E		EP 1998-932416 19980710	
DE 69826481 T2		EP 1998-932416 19980710	
EP 998500 A1		WO 1998-02037 19980710	
JP 2001510862 W		WO 1998-02037 19980710	
US 6509288 B1 Cont of		WO 1998-02037 19980710	
EP 998500 B1		WO 1998-02037 19980710	
DE 69826481 E		WO 1998-02037 19980710	
DE 69826481 T2		WO 1998-02037 19980710	
US 6509288 B1		US 1999-443896 19991119	
JP 2001510862 W		JP 2000-504173 19980710	
KR 2001021898 A		KR 2000-700452 20000114	
CN 1151178 C		CH 1998-007355 19980710	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69826481 E	Based on	EP 998500 A
DE 69826481 T2	Based on	EP 998500 A
EP 998500 A1	Based on	WO 9905182 A
JP 2001510862 W	Based on	WO 9905182 A
EP 998500 B1	Based on	WO 9905182 A
DE 69826481 E	Based on	WO 9905182 A
DE 69826481 T2	Based on	WO 9905182 A

PRIORITY APPLN. INFO: CA 1997-15317 19970722

INT. PATENT CLASSIF.:

MAIN:

IPC RECLASSIF.:

C08F004-64
C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0110-00 [N,C];
C08F0110-06 [N,A]; C08F0210-00 [N,C]; C08F0210-06 [N,A];
C08F0004-00 [I,C]; C08F0004-64 [I,A]; C08F0004-659 [N,A];
C08F0004-6592 [I,A]

BASIC ABSTRACT:

WO 199905182 A1 UPAB: 20060115

A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α -olefins of mol. weight (Mn) 200-500,000, comprises a metallocene of formula (RnCpH(5-n)(RnCpH(5-n))M(2)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging groups linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z = H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β -ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α -olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α -olefins prepared using the above catalyst system.

USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α -olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.

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claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α -olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α -olefins prepared using the above catalyst system.

USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α -olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.

ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation.

L162 ANSWER 65 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 1999-169817 [15] WPIX
DOC. NO. CPI: C1999-049889 [15]
TITLE: Catalyst for ethylene⁸ type polymerisation - comprises a solid catalyst component and a transition metal compound having a conjugated pi-electron-containing group as a ligand
DERIVENT CLASS: A17; E12
INVENTOR: INASAWA S; MONOI H; TAKEMOTO Y; WAKI S
PATENT ASSIGNEE: (NIPO-N) JAPAN POLYOLEFINS CO LTD
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 10251321	A	19980922 (199915)*	JA	16[1]		C08F004-657 <--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 10251321 A		JP 1997-57888 19970312	

PRIORITY APPLN. INFO: JP 1997-57888 19970312

INT. PATENT CLASSIF.:

IPC RECLASSIF.:

C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0110-02 [I,A];
C08F0004-00 [I,C]; C08F0004-657 [I,A]; C08F0004-659 [I,A];
C08F0004-6592 [I,A]; C08F0004-69 [I,A]

BASIC ABSTRACT:

JP 10251321 A UPAB: 20050704

A catalyst for ethylene type polymerisation comprises: (A) a solid catalyst component; and (B) a transition metal cpd. having conjugated π -electron-containing gp. as a ligand.

(A) is prepared by prepolymerising (a) solid catalyst component in the presence of α -olefin. (a) comprises (a-1) a Cr cpd., (a-2) a carrier and (a-3) aluminoxane.

USE - The obtd. polymer is suitable for inflation film moulding and hollow moulding.

ADVANTAGE - The polymer has a broad distribution of molecular weight, a large melt tension and only slight gel fish eye. MANUAL CODE: CPI: A02-A06; A02-A07A; A02-D; A04-G01A; A06-D01; A12-W11K; E05-B02; E05-L03A; E05-M; E31-P03

L162 ANSWER 66 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 1998-439310 [38] WPIX
DOC. NO. CPI: C1998-133618 [38]
TITLE: Graft copolymer for composite materials and heat-resistant elastomer - comprises styrene-based

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ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation. MANUAL CODE: CPI: A02-A06K; A04-G01A; E05-L01; E05-M; E05-N; H06-D03; H07-G06

Member(0002)

ABEQ EP 998500 A1 UPAB 20060115

A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α -olefins of mol. wt. (Mn) 200-500,000, comprises a metallocene of formula (RnCpH(5-n)(RnCpH(5-n))M(2)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging groups linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z = H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β -ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α -olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α -olefins prepared using the above catalyst system.

USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α -olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.

ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation.

Member(0003)

ABEQ CN 1264392 A UPAB 20060115

A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α -olefins of mol. wt. (Mn) 200-500,000, comprises a metallocene of formula (RnCpH(5-n)(RnCpH(5-n))M(2)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging groups linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z = H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β -ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α -olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α -olefins prepared using the above catalyst system.

USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α -olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.

ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation.

Member(0004)

ABEQ JP 2001510862 W UPAB 20060115

A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α -olefins of mol. wt. (Mn) 200-500,000, comprises a metallocene of formula (RnCpH(5-n)(RnCpH(5-n))M(2)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging groups linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z = H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β -ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also

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monomer and a terminal styrene derivative-modified olefin-based macromer having a high degree of syndiotacticity

DERIVENT CLASS:

INVENTOR:

PATENT ASSIGNEE:

COUNTRY COUNT:

TEJIMA H; TESHIMA H
(IDEM-C) IDEMITSU PETROCHEM CO LTD; (IDEM-C) IDEMITSU
SEKIYU KAGAKU KK
28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 860456	A1	19980826 (199838)*	EN	23		C08F290-04 <--
JP 10237139	A	19980908 (199846)	JA	13		C08F290-12 <--
JP 10237242	A	19980908 (199846)	JA	6		C08L023-26 <--
JP 10292076	A	19981104 (199903)	JA	16		C08L025-00 <--
KR 98071545	A	19981026 (199953)	KO			C08F212-08 <--
US 6100331	A	20000808 (200040)	EN			C08L051-00 <--
TW 513446	A	20021211 (200353)	ZH			C08F257-02 <--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 860456 A1		EP 1998-102758 19980218	
JP 10237139 A		JP 1997-37959 19970221	
JP 10237242 A		JP 1997-37961 19970221	
JP 10292076 A		JP 1998-14094 19980127	
TW 513446 A		TW 1998-101395 19980204	
US 6100331 A		US 1998-25850 19980219	
KR 98071545 A		KR 1998-53317 19980220	

PRIORITY APPLN. INFO: JP 1997-37959 19970221JP 1997-37960 19970221JP 1997-37961 19970221

INT. PATENT CLASSIF.:

IPC RECLASSIF.:

C08F212-08; C08F257-02
C08F0212-00 [I,C]; C08F0212-08 [I,A]; C08F0255-00 [I,A];
C08F0255-00 [I,C]; C08F0290-00 [I,C]; C08F0290-00 [I,C];
C08F0290-00 [I,C]; C08F0290-12 [I,A]; C08L0023-00 [I,C];
C08L0023-26 [I,A]; C08L0025-00 [I,A]; C08L0025-00 [I,C];
C08L0025-00 [I,C]; C08L0025-04 [I,A]; C08L0051-00 [I,C];
C08L0051-06 [I,A]

BASIC ABSTRACT:

EP 860456 A1 UPAB: 20060114

A graft copolymer (A) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity of the chains derived from the styrene-based monomer:

R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.

(1) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer

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(A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:

- (a) a transition metal cpd; and
- (b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)-a-(Y2(R3)-O)-b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
- (ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
- (c) an alkylating agent.

USE - Useful as component parts for composite materials and also as heat-resistant elastomers.

ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins. MANUAL CODE: CPI: A02-A06C; A04-C01; A10-C01; E05-B02; E05-C; E05-D; E05-E; E05-G; E05-H; E05-L; E05-M; E05-N; E10-B04; E10-J02B4

Member(0002)

ABEQ JP 10237139 A UPAB 20060114

A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:

R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.

Also claimed are:

- (i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
- (a) a transition metal cpd; and
- (b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)-a-(Y2(R3)-O)-b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
- (ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
- (c) an alkylating agent.

USE - Useful as component parts for composite materials and also as

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(b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)-a-(Y2(R3)-O)-b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
- (ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
- (c) an alkylating agent.

USE - Useful as component parts for composite materials and also as heat-resistant elastomers.

ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

Member(0006)

ABEQ US 6100331 A UPAB 20060114

A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:

R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.

Also claimed are:

- (i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
- (a) a transition metal cpd; and
- (b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)-a-(Y2(R3)-O)-b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
- (ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
- (c) an alkylating agent.

USE - Useful as component parts for composite materials and also as heat-resistant elastomers.

ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

L162 ANSWER 67 OF 71 WPIC COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 1997-034295 [03] WPIC

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heat-resistant elastomers.

ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

Member(0003)

ABEQ JP 10237242 A UPAB 20060114

A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:

R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.

Also claimed are:

- (i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
- (a) a transition metal cpd; and
- (b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)-a-(Y2(R3)-O)-b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
- (ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
- (c) an alkylating agent.

USE - Useful as component parts for composite materials and also as heat-resistant elastomers.

ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

Member(0004)

ABEQ JP 10292076 A UPAB 20060114

A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:

R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.

Also claimed are:

- (i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
- (a) a transition metal cpd; and

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DOC. NO. CPI: C1997-010721 [03]

TITLE: Metallocene cpd. useful as olefin polymerisation catalysts - prepared by reacting bis:indene cpd. with cpd. capable of forming de-localised anion on cyclopentadienyl ring and then with halide, e.g. titanium tetrachloride, etc., giving uniform distribution of comonomers and low ash content

DERIVAT CLASS: A17; E19

INVENTOR: BARBASSA E; DUBITSKY Y A; ERNST R; NIFANT'EV I E; NIFANT'EV I E; RESCONI L; SCHAEVRIEN C J

PATENT ASSIGNEE: (BASE-C) BASELL TECHNOLOGY CO BV; (MONT-C) MONTELL ITAL SPA; (MONT-C) MONTELL TECHNOLOGY CO BV; (SPHE-N) SPHERILENE SPA

COUNTRY CODE: 22

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9638458	A1	19961205	(199703)*	EN	72[0]	C07F017-00	<--
IT 1275408	B	19970805	(199824)	IT		C07F000-00	<--
EP 846122	A1	19980610	(199827)	EN		C07F017-00	<--
JP 11505860	W	19990525	(199931)	JA	59	C07F017-00	<--
EP 846122	B1	20000705	(200035)	EN		C07F017-00	<--
DE 69609186	E	20000810	(200045)	DE		C07F017-00	<--
US 6369254	B1	20020409	(200227)	EN		C08F004-64	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9638458 A1		WO 1996-EP2307	19960529
IT 1275408 B		IT 1995-MI1118	19950530
DE 69609186 E		DE 1996-69609186	19960529
EP 846122 A1		EP 1996-918640	19960529
EP 846122 B1		EP 1996-918640	19960529
DE 69609186 E		EP 1996-918640	19960529
JP 11505860 W		JP 1996-536183	19960529
EP 846122 A1		WO 1996-EP2307	19960529
JP 11505860 W		WO 1996-EP2307	19960529
EP 846122 B1		WO 1996-EP2307	19960529
DE 69609186 E		WO 1996-EP2307	19960529
US 6369254 B1		US 1996-633729	19960530

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69609186 E	Based on	EP 846122 A
EP 846122 A1	Based on	WO 9638458 A
JP 11505860 W	Based on	WO 9638458 A
EP 846122 B1	Based on	WO 9638458 A
DE 69609186 E	Based on	WO 9638458 A

PRIORITY APPL. INFO: IT 1995-MI1118 19950530

INT. PATENT CLASSIF.:

MAIN: C07F017-00
IPC RECLASSIF.: C07C013-00 [I,C]; C07C013-465 [I,A]; C07C013-567 [I,A]; C07F0017-00 [I,A]; C07F0017-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-30 [I,A]; C07F0009-00 [I,C]

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C07F0009-50 [I,A]; C08F0010-00 [I,A]; C08F0010-00 [I,C]
C08F0021-00 [N,C]; C08F0210-16 [N,A]; C08F0210-18 [N,A]
C08F0004-00 [I,C]; C08F0004-64 [I,A]; C08F0004-642
[I,A]; C08F0004-655 [I,A]; C08F0004-659 [N,A];
C08F0004-6592 [N,A]; C08F0004-68 [I,A]; C08F0004-69 [I,A]

BASIC ABSTRACT:

WO 1996038458 A1 UPAB: 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl, 6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R2SiCR42, two or four substituents. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addition, R2 and R3 substituents. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (1) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the prepn. of cpd. (II) where at least one substit. R2 is different from a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the preparation of (I). The catalyst is used for olefin polymerisation, especially copolymerisation of ethylene with a 3-12C α -olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtnd. prod. has uniform distribution of comonomers and low ash content.

MANUAL CODE: CFI: A02-A06E; A02-A07A; A04-G01A; A06-D01; A12-W11K;
E05-E01; E05-F02; E05-M

Member (0003)

ABEQ EP 846122 A1 UPAB 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl, 6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R2SiCR42, two or four substituents. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addition, R2 and R3 substituents. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (1) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the prepn. of cpd. (II) where at least one substit. R2 is different from a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the prepn. of (I). The catalyst is used for olefin polymerisation, esp. copolymerisation of ethylene with a 3-12C α -olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtnd. prod. has uniform distribution of comonomers and low ash content.

Member (0004)

ABEQ JP 11505860 W UPAB 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl,

6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R2SiCR42, two or four substituents. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addition, R2 and R3 substituents. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (1) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the prepn. of cpd. (II) where at least one substit. R2 is different from a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the prepn. of (I). The catalyst is used for olefin polymerisation, esp. copolymerisation of ethylene with a 3-12C α -olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtnd. prod. has uniform distribution of comonomers and low ash content.

Member (0005)

ABEQ EP 846122 B1 UPAB 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl, 6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R2SiCR42, two or four substituents. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addition, R2 and R3 substituents. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (1) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the prepn. of cpd. (II) where at least one substit. R2 is different from a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the prepn. of (I). The catalyst is used for olefin polymerisation, esp. copolymerisation of ethylene with a 3-12C α -olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtnd. prod. has uniform distribution of comonomers and low ash content.

L162 ANSWER 68 OF 71 WPIX COPYRIGHT 2007

THE THOMSON CORP ON STN

ACCESSION NUMBER: 1995-226200 [30] WPIX

CROSS REFERENCE: 1995-225470; 1995-233280

DOC. NO. CFI: C1995-104099 [30]

TITLE: Stereo-rigid metallocenes useful in catalyst for cyclo-olefin copolymer production - especially zirconocenes, contain at least two cyclo-penta-dienyl ligands joined by and at least partly annelated with ring system

HERVENT CLASS:

INVENTOR: A17: AGO; E11; E12
AULBACH M; AULBACH M; BACHMANN B; ERKER G; HERRMANN H;
KUEBER F; KUEBER F; OSAN F; PSIORZ C; WELLMER D T; WELLMER T

PATENT ASSIGNEE:

(FARH-C) HOECHST AG; (TARG-C) TARGOR GMBH; (TICN-C)

COUNTRY COUNT:

28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 659758	A1	19950628	(199530)	DE	43[0]	C07F017-00 <--
DE 4344631	A1	19950629	(199531)	DE	18[0]	C08F032-08 <--
AU 9481654	A	19950629	(199533)	EN		C07F017-00 <--
NO 9404949	A	19950622	(199534)	NO		C08F004-60 <--
CA 2138723	A	19950622	(199538)	EN		C07F017-00 <--
FI 9405959	A	19950622	(199538)	FI		C08F004-42 <--
BR 9405204	A	19950801	(199544)	PT		C07F017-00 <--
ZA 9410172	A	19950927	(199544)	EN	83[0]	C07F000-00 <--
JP 07292020	A	19951107	(199560)	JA	36[0]	C08F004-642 <--
DE 4432617	A1	19960321	(199617)	DE	25[0]	C07F017-00 <--
CZ 9403249	A3	19960417	(199623)	CS		C07F017-00 <--
TV 272204	A	19960311	(199625)	ZH		C08F004-64 <--
HU 70864	T	19951128	(199733)	HU		C08F032-08 <--
CN 1112564	A	19951129	(199738)	ZH		C07F017-00 <--
US 5710297	A	19980120	(199810)	EN	28[0]	C07F017-00 <--
AU 687927	B	19980305	(199820)	EN		C07F017-00 <--
EP 659758	B1	19981119	(199850)	DE		C08F010-00 <--
DE 59407303	G	19981224	(199806)	DE		C08F010-00 <--
ES 2123701	T3	19990116	(199909)	ES		C08F010-00 <--
US 5990254	A	19991123	(200002)	EN		C08F232-04 <--
CN 1235172	A	19991117	(200013)	ZH		C08F232-06 <--
NO 307520	B1	20000417	(200026)	NO		C08F004-60 <--
RU 2154067	C2	20000810	(200066)	RU		C07F017-00 <--
MX 194935	B	20000114	(200115)	ES		C08F010-000 <--
HU 220638	B1	20020329	(200234)	HU		C08F032-08 <--
JP 3493387	B2	20040203	(200410)	JA	36	C07F017-00 <--
CN 1056148	C	20000906	(200471)	ZH		C07F017-00 <--
CA 2138723	C	20050726	(200551)	EN		C07F017-00 <--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 659758 A1		EP 1994-120162	19941220
DE 4344631 A1		DE 1995-4344631	19951224
TV 272204 A		TV 1994-101154	19940215
DE 4432617 A1		DE 1994-4432617	19940914
FI 9405959 A		FI 1994-5959	19941219
CZ 9403249 A3		CZ 1994-3249	19941220
DE 59407303 G		DE 1994-59407303	19941220
EP 659758 B1		EP 1994-120162	19941220
DE 59407303 G		EP 1994-120162	19941220
ES 2123701 T3		EP 1994-120162	19941220
NO 9404949 A		NO 1994-4949	19941220
NO 307520 B1		NO 1994-4949	19941220
AU 9481654 A		AU 1994-81654	19941221
AU 687927 B		AU 1994-81654	19941221
BR 9405204 A		BR 1994-5204	19941221
CA 2138723 A		CA 1994-2138723	19941221
CA 2138723 C		CA 1994-2138723	19941221
CN 1112564 A		CN 1994-120496	19941221
CN 1235172 A Div Ex		CN 1994-120496	19941221
CN 1056148 C		CN 1994-120496	19941221
HU 70864 T		HU 1994-3703	19941221
HU 220638 B1		HU 1994-3703	19941221
JP 07292020 A		JP 1994-340786	19941221

JP 3493387 B2	JP 1994-340786	19941221
RU 2154067 C2	RU 1994-44331	19941221
US 5710297 A Cont of	US 1994-361423	19941221
US 5990254 A Cont of	US 1994-361423	19941221
ZA 9410172 A	ZA 1994-10172	19941221
MX 194935 B	MX 1995-219	19950102
US 5710297 A	US 1996-712681	19960913
US 5990254 A Div Ex	US 1996-712681	19960913
US 5990254 A	US 1996-780179	19961226
CN 1235172 A	CN 1999-105162	19941221

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 687927 B	Previous Publ	AU 9481654 A
DE 59407303 G	Based on	EP 659758 A
ES 2123701 T3	Based on	EP 659758 A
HU 220638 B1	Previous Publ	HU 70864 T
JP 3493387 B2	Previous Publ	JP 07292020 A
NO 307520 B1	Previous Publ	NO 9404949 A
US 5990254 A	Div ex	US 5710297 A

PRIORITY APPLN. INFO: DE 1994-4432617 19940914
DE 1993-4344631 19931224
DE 1993-4344631 19931224

INT. PATENT CLASSIF.:

MAIN: C08F010-00; C08F010-000; C08F004-64
B01J0031-06 [I,A]; B01J0031-06 [I,C]; B01J0031-16 [I,C];
B01J0031-22 [I,A]; C07F0017-00 [I,A]; C07F0017-00 [I,C]
C07F017-00
SECONDARY: C08F010-00 [I,A]; C08F010-00 [N,C]; C08F010-02 [N,A]; C08F010-06 [N,A]; C08F0210-00 [N,C]; C08F0210-16 [N,A]; C08F0210-18 [N,A]; C08F0032-04 [I,A]; C08F0032-08 [I,A]; C08F0004-00 [I,C]; C08F0004-60 [I,C]; C08F0004-60 [N,C]; C08F0004-42 [I,A]; C08F0004-60 [I,A]; C08F0004-60 [I,A]; C08F0004-602 [I,A]; C08F0004-606 [I,A]; C08F0004-619 [N,A]; C08F0004-6192 [N,A]; C08F0004-642 [I,A]; C08F0004-659 [N,A]; C08F0004-6592 [I,A]; C08F0004-6592 [N,A]; C08F0004-76 [I,A]; C08J0005-00 [I,A]; C08J0005-00 [I,C]

BASIC ABSTRACT:

EP 659758 A1 UPAB: 20060109
Stereo-rigid metallocenes (I) containing at least 2 opt. subst. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(η^5 -5-alkyl-cyclopentadienyl)-4,6,6-trimethyl-1-tetras-2-alkyl-4,5-tetrahydronaphthalene ligand system are excluded. Also claimed are catalyst components containing supported and/or prepolymerised (I), the production of a cycloolefin copolymer (II) in the presence of a catalyst containing cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys containing (II); mouldings containing (II) or the polymer alloys; and the use of (I) in the production of (II).

USE - (I) and the catalyst systems are useful in the production of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.

ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength. MANUAL CODE: CFI: A02-A06E; A02-A06E1; A04-G; E05-E01; E05-F02; E05-G; E05-G02; E05-G03B; E05-L;

E05-M; E05-W; E05-P

Member (0002)

ABEQ DE 4344631 A1 UPAB 20060109

Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- (eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).

USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene. ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member (0008)

ABEQ ZA 9410172 A UPAB 20060109

Stereo-rigid metallocenes (Mc) contain at least two opt. substd. cyclopentadienyl (Cp) ligands linked together via a mono- or poly-cyclic ring system which forms a condensed ring system with at least one of the Cp gps.

Also claimed are (i) a supported and/or prepolymerised catalyst component contg. Mc and (ii) a process for the prodn. of polyolefins by (co)polymerisation of olefins in presence of a catalyst contg. Mc cpd(s).. USE - Used as a catalyst component for (co)polymerisation of olefins.

ADVANTAGE - Enables prodn. of polyolefins with reduced crystallinity, increased impact strength and transparency, high flow at processing temps., low molecular wt. and reduced m.p.t..

Member (0009)

ABEQ JP 07292020 A UPAB 20060109

Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- (eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).

USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene. ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member (0010)

ABEQ DE 4432617 A1 UPAB 20060109

Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- (eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are

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copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.

ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member (0021)

ABEQ CN 1235172 A UPAB 20060109

Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- (eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).

USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.

ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

LI62 ANSWER 69 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 1995-076314 [11] WPIX
DOC. NO. CPI: C1995-033919 [11]
TITLE: High activity olefin* polymerisation catalyst for ethylene* polymer - comprises metallocene cpd., organo-aluminium oxy cpd., carbonyl-containing cpd. and opt. organo-aluminium cpd. for ethylene* olefin* copolymer A17; A60; E12
INVENTOR: KAMI T; TSUTSUMI T; YOSHIZU T; YOSHITSUGU K; YOSHIZUKI K
PATENT ASSIGNEE: (MITA-C) MITSUI CHEM INC; (MITC-C) MITSUI PETROCHEM IND CO LTD; (MITC-C) MITSUI PETROCHEMICAL IND LTD
COUNTRY COUNT: 10

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 638595	A2	19950215	(199511)*	EN	27[2]	C08F010-00 <--
JP 07053619	A	19950228	(199517)	JA	10	C08F004-642 <--
JP 07053620	A	19950228	(199517)	JA	16	C08F004-642 <--
CA 2129794	A	19950211	(199518)	EN		C08F004-649 <--
EP 638595	A3	19950426	(199545)	EN		C08F010-00 <--
US 5539069	A	19960723	(199635)	EN	19[2]	C08F004-649 <--
US 5543377	A	19960806	(199637)	EN	19[2]	C08F004-649 <--
CN 1100429	A	19950322	(199723)	ZH		C08F010-00 <--
EP 638595	B1	19981014	(199845)	EN		C08F010-00 <--
DE 69413904	E	19981119	(199901)	DE		C08F010-00 <--
KR 312700	B	20011228	(200252)	KD		C08F010-00 <--
JP 3465309	B2	20031110	(200377)	JA	10	C08F004-649 <--
JP 3465310	B2	20031110	(200377)	JA	16	C08F004-649 <--
CN 1048502	C	20000119	(200464)	ZH		C08F004-649 <--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 638595 A2		EP 1994-305923	19940810

203

SN10/510,476 Page 202 of 244 STIC STN SEARCH

excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).

USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.

ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member (0015)

ABEQ US 5710297 A UPAB 20060109

Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- (eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).

USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene. ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member (0017)

ABEQ EP 659758 B1 UPAB 20060109

Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- (eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).

USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.

ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member (0020)

ABEQ US 5990254 A UPAB 20060109

Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- (eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).

USE - (I) and the catalyst systems are useful in the prodn. of

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JP 07053619 A	JP 1993-198609	19930810
JP 3465309 B2	JP 1993-198609	19930810
JP 07053620 A	JP 1993-198610	19930810
JP 3465310 B2	JP 1993-198610	19930810
CA 2129794 A	CA 1994-2129794	19940809
US 5539069 A	US 1994-287799	19940809
US 5543377 A Div Ex	US 1994-287799	19940809
CN 1100429 A	CN 1994-109080	19940810
CN 1048502 C	CN 1994-109080	19940810
DE 69413904 E	DE 1994-69413904	19940810
EP 638595 A3	EP 1994-305923	19940810
EP 638595 B1	EP 1994-305923	19940810
DE 69413904 E	DE 1994-305923	19940810
KR 312700 B	KR 1994-197510	19940810
US 5543377 A	US 1995-456805	19950601

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69413904 E	Based on	EP 638595 A
JP 3465309 B2	Previous Publ	JP 07053619 A
JP 3465310 B2	Previous Publ	JP 07053620 A
KR 312700 B	Previous Publ	KR 95005853 A

PRIORITY APPLN. INFO: JP 1993-198609 19930810
JP 1993-198610 19930810

INT. PATENT CLASSIF.:

MAIN:
C08F010-00 [I,A]; C08F0010-00 [I,A]; C08F0010-00 [I,C];
C08F0010-00 [I,C]; C08F0210-00 [I,C]; C08F0210-00 [N,C];
C08F0210-16 [I,A]; C08F0210-16 [N,A]; C08F0004-00 [I,C];
C08F0004-00 [N,C]; C08F0004-60 [I,A]
C08F004-64
SECONDARY:
C08F0004-642 [I,A]; C08F0004-649 [I,A]; C08F0004-655 [I,A];
C08F0004-659 [N,A]; C08F0004-6592 [I,A]; C08F0004-6592 [N,A]

BASIC ABSTRACT:

EP 638595 A2 UPAB: 20060109
An olefin polymerisation catalyst comprises:
(a) a cpd. of a gp. IVB transition metal containing a ligand with a cyclopentadienyl skeleton;
(b) an organoaluminum oxy cpd. and
(c) one or more carbonyl-containing comprising keto-alcohols and/or beta-diketones.
Also claimed are
(1) a solid olefin polymerisation catalyst comprising
(i) the pref. catalyst (below) and
(ii) an organoaluminum cpd. and
(2) a process comprising polymerizing an olefin in the presence of the above catalyst.
USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.
ADVANTAGE - The catalyst has excellent activity per unit weight and can give polymers of high mol. weight as particles of uniform size with very few fines.
CPI: A02-AB6E1; A02-A07A; A04-G01A; A06-G; A12-W11K
E05-B02; E05-B03; E05-C01; E05-M; E05-P
E10-ED4M2; E10-F02C

Member (0002)

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ABEQ JP 07053619 A UPAB 20060109

An olefin polymerisation catalyst comprises:

- (a) a cpd. of a sp. IVB transition metal contg. a ligand with a cyclopentadienyl skeleton;
- (b) an organoaluminium oxy cpd. and
- (c) one or more carbonyl-contg. comprising keto-alcohols and/or beta-diketones.

Also claimed are

- (i) a solid olefin polymerisation catalyst comprising
- (i) the pref. catalyst (below) and
- (ii) an organoaluminium cpd; and
- (2) a process comprising polymerising an olefin in the presence of the above catalyst.

USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.

ADVANTAGE - The catalyst has excellent activity per unit wt. and can give polymers of high mol. wt. as particles of uniform size with very few fines.

Member(0003)

ABEQ JP 07053620 A UPAB 20060109

An olefin polymerisation catalyst comprises:

- (a) a cpd. of a sp. IVB transition metal contg. a ligand with a cyclopentadienyl skeleton;
- (b) an organoaluminium oxy cpd. and
- (c) one or more carbonyl-contg. comprising keto-alcohols and/or beta-diketones.

Also claimed are

- (1) a solid olefin polymerisation catalyst comprising
- (i) the pref. catalyst (below) and
- (ii) an organoaluminium cpd; and
- (2) a process comprising polymerising an olefin in the presence of the above catalyst.

USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.

ADVANTAGE - The catalyst has excellent activity per unit wt. and can give polymers of high mol. wt. as particles of uniform size with very few fines.

Member(0009)

ABEQ EP 638595 B1 UPAB 20060109

An olefin polymerisation catalyst comprises:

- (a) a cpd. of a sp. IVB transition metal contg. a ligand with a cyclopentadienyl skeleton;
- (b) an organoaluminium oxy cpd. and
- (c) one or more carbonyl-contg. comprising keto-alcohols and/or beta-diketones.

Also claimed are

- (1) a solid olefin polymerisation catalyst comprising
- (i) the pref. catalyst (below) and
- (ii) an organoaluminium cpd; and
- (2) a process comprising polymerising an olefin in the presence of the above catalyst.

USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.

ADVANTAGE - The catalyst has excellent activity per unit wt. and can give polymers of high mol. wt. as particles of uniform size with very few fines.

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*liver cytosol
animal tissue
article

enzyme inactivation
liver microsomes
liver protection
nonhuman
priority journal
rat
reduction

Drug Descriptors:

*dicoumarol
*hydrogen peroxide: EC, endogenous compound
*hydroxyl radical: EC, endogenous compound
*iron complex

*menadione: PK, pharmacokinetics
*reduced nicotinamide adenine dinucleotide (phosphate) dehydrogenase (quinone): EC, endogenous compound
adenosine triphosphate
ammonium sulfate

antioxidant
catalase
deferoxamine
dimethyl sulfoxide
edetic acid

ethylene
ferric citrate
ferric ion

formaldehyde

glutamate ammonia ligase: EC, endogenous compound
glutathione
histidine

lactate dehydrogenase: EC, endogenous compound
liver enzyme: EC, endogenous compound
pentetic acid

quinone derivative
reduced nicotinamide adenine dinucleotide
reduced nicotinamide adenine dinucleotide phosphate
scavenger

superoxide dismutase
(dicoumarol) 66-76-2; (hydrogen peroxide) 7722-84-1; (hydroxyl radical) 3352-57-6; (menadione) 58-27-5; (reduced nicotinamide adenine dinucleotide (phosphate) dehydrogenase (quinone)) 9032-20-6; (adenosine triphosphate) 15237-44-2; 56-65-5; 987-65-5; (ammonium sulfate) 7783-20-2; (catalase) 9001-05-2; (deferoxamine) 70-51-9; (dimethyl sulfoxide) 67-68-5; (edetic acid) 150-43-6; 60-00-4; (ethylene) 74-85-1; (ferric citrate) 28633-45-6; 3522-50-7; (ferric ion) 20074-52-6; (formaldehyde) 50-00-0;

(glutamate ammonia ligase) 9023-70-5; (glutathione) 70-18-8; (histidine) 645-35-2; 7006-35-1; 71-00-1; (lactate dehydrogenase) 9001-60-9; (pentetic acid) 14047-41-7; 67-43-6; (reduced nicotinamide adenine dinucleotide) 58-68-4; (reduced nicotinamide adenine dinucleotide phosphate) 53-57-6; (superoxide dismutase) 37294-21-6, 9016-01-7, 9054-89-1

RN

L162 ANSWER 71 OF 71 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2001315448 EMBASE Full-text

TITLE: Therapeutic potential of PKC inhibitors in painful diabetic neuropathy.

AUTHOR: Kamei J.; Mizoguchi H.; Narita M.; Tseng L.F.

CORPORATE SOURCE: J. Kamei, Dept. Pathophysiology/Therapeutics, Faculty of

207

SN10/510,476 Page 206 of 244 STIC STN SEARCH

=> d ibib ed ab ind 70-71

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPFTULL, WPIX, EMBASE' - CONTINUE? (Y)/N:y

L162 ANSWER 70 OF 71 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 94175759 EMBASE Full-text

DOCUMENT NUMBER: 1994175759

TITLE: Requirement for iron for the production of hydroxyl radicals by rat liver quinone reductase.

AUTHOR: Dicker E.; Cederbaum A.I.

CORPORATE SOURCE: Department of Biochemistry, Mount Sinai School of Medicine, Box 1020, One Gustave L. Levy Place, New York, NY 10029, United States

SOURCE: Journal of Pharmacology and Experimental Therapeutics, (1993) Vol. 266, No. 3, pp. 1282-1290. ISSN: 0022-3565 CODEN: JPETAB

COUNTRY: United States

DOCUMENT TYPE: Journal Article

FILE SEGMENT: 029 Clinical Biochemistry

030 Pharmacology

037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 6 Jul 1994

Last Updated on STN: 6 Jul 1994

ED Entered STN: 6 Jul 1994

Last Updated on STN: 6 Jul 1994

AB NADPH-quinone reductase catalyzes the two-electron reduction of quinones such as menadione, and generally is considered to play a protective role against quinone-mediated toxicity. Recent studies have shown that reactive oxygen intermediates may be produced during metabolism of quinones by quinone reductase. Experiments were carried out to evaluate the effect of iron complexes on production of hydroxyl radical ($\cdot\text{OH}$) when menadione was oxidized by a rat liver cytosolic fraction. Menadione-stimulated H_2O_2 production when added to the cytosol; dicoumarol, a potent inhibitor of quinone reductase, completely blocked this stimulation. Results were identical with either NADH or NADPH as reductant. In the absence of added iron, $\cdot\text{OH}$, assessed as oxidation of chemical scavengers, was not produced. Various ferric chelates, added to the cytosol in the absence of menadione, did not catalyze $\cdot\text{OH}$ production. However, $\cdot\text{OH}$ was produced in the presence of menadione with all ferric complexes evaluated except for ferric-desferrioxamine. Catalase, competitive scavengers and GSH inhibited $\cdot\text{OH}$ production, as did dicoumarol. Superoxide dismutase inhibited with ferric-ATP, ferric-citrate, ferric-histidine or ferric ammonium sulfate as iron catalysts, but had no effect with ferric-EDTA or ferric-diethylenetriamine penta-acetic acid. Reduction of the ferric complexes was increased by menadione. NADH and NADPH were equally effective as cofactor for all these reactions. Metabolism of menadione in the presence of iron complexes caused inactivation of enzymes present in the cytosolic fraction such as glutamine synthetase and lactate dehydrogenase. These results indicate that metabolism of menadione by quinone reductase can lead to the production of $\cdot\text{OH}$ in the presence of various ferric catalysts. Menadione-dependent production of H_2O_2 and reduction of the ferric catalyst appear to be responsible for the generation of $\cdot\text{OH}$ in this system. Quinone reductase may not always serve a protective role against free radical damage, especially if iron is present.

CT Medical Descriptors:

*drug oxidation

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SN10/510,476 Page 208 of 244 STIC STN SEARCH

Pharmaceutical Sciences, Hoshi University, Tokyo 142-8501,

Japan. kamei@hoshi.ac.jp

SOURCE: Expert Opinion on Investigational Drugs, (2001) Vol. 10, No. 9, pp. 1653-1664. Refs: 127

ISSN: 1354-3784 CODEN: EIDDER

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal General Review

FILE SEGMENT: 003 Endocrinology

005 General Pathology and Pathological Anatomy

006 Internal Medicine

008 Neurology and Neurosurgery

030 Pharmacology

037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 27 Sep 2001

Last Updated on STN: 27 Sep 2001

ED Entered STN: 27 Sep 2001

Last Updated on STN: 27 Sep 2001

AB Diabetic neuropathy accompanied by anomalies in pain perception is one of the most frequent complications in insulin-dependent diabetes in humans. Many clinical and experimental studies have suggested that diabetes or hyperglycaemia alters pain sensitivity. In humans, diabetic neuropathy can be associated with burning, tactile hypersensitivity. Behavioural reactions of hyperalgesia in animal models of diabetes have been described. However, the aetiology of these disturbances is still unknown, although metabolic factors such as hyperglycaemia or neurotransmitter alteration may be involved.

Activation of protein kinase C (PKC) has been implicated in changes in pain perception. Phorbol esters, which activate PKC, enhance the thermal hyperalgesia in diabetic mice and enhance nociceptive responses after tissue injury induced by formalin. Electrophysiological experiments have shown that activation of PKC leads to long-lasting enhancement of excitatory amino acid-mediated currents in dorsal horn neurons and trigeminal neurons. Thus, activation of PKC may underlie the neuronal sensitisation that produces hyperalgesia in diabetic neuropathy.

CT Medical Descriptors:

*diabetic neuropathy: CO, complication

*diabetic neuropathy: DT, drug therapy

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

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*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

*diabetic neuropathy: ET, etiology

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knockout mouse
streptozocin diabetes
tail flick test
peripheral nerve injury
sodium channel
human
nonhuman
mouse
animal experiment
animal model
controlled study
animal tissue
review
Drug Descriptors:
*protein kinase C inhibitor: DT, drug therapy
*protein kinase C inhibitor: PD, pharmacology
neurotransmitter: EC, endogenous compound
protein kinase C: EC, endogenous compound
phorbol ester: PD, pharmacology
formaldehyde
amino acid: EC, endogenous compound
glutamic acid: EC, endogenous compound
n methyl dextro aspartic acid receptor: EC, endogenous compound
4 carboxyphenylglycine: DT, drug therapy
4 carboxyphenylglycine: PD, pharmacology
4 carboxyphenylglycine: TL, intrathecal drug administration
n methyl dextro aspartic acid receptor blocking agent: DT, drug therapy
n methyl dextro aspartic acid receptor blocking agent: PD, pharmacology
n methyl dextro aspartic acid receptor blocking agent: TL, intrathecal drug administration
dizocilpine: DT, drug therapy
dizocilpine: PD, pharmacology
dizocilpine: TL, intrathecal drug administration
ketamine: DT, drug therapy
ketamine: PD, pharmacology
neurokinin 1 receptor: EC, endogenous compound
substance P: EC, endogenous compound
calphostin C: DT, drug therapy
calphostin C: PD, pharmacology
calphostin C: TL, intrathecal drug administration
cyclic AMP dependent protein kinase: EC, endogenous compound
tachykinin: EC, endogenous compound
streptozocin
9 [(dimethylamino)methyl] 6,7,10,11 tetrahydro 9h,18h 5,21:12,17
dimethenedibenzo[e,k]pyrrolo[3,4-b][1,4,13]oxadiazacyclohexadecine
18,20(19h) dione: DT, drug therapy
9 [(dimethylamino)methyl] 6,7,10,11 tetrahydro 9h,18h 5,21:12,17
dimethenedibenzo[e,k]pyrrolo[3,4-b][1,4,13]oxadiazacyclohexadecine
18,20(19h) dione: PD, pharmacology
inositol: EC, endogenous compound
niceritol: DT, drug therapy
niceritol: PD, pharmacology
polyol: EC, endogenous compound
aldose reductase inhibitor: PD, pharmacology
ganglioside GM1: PD, pharmacology
phorbol 13 acetate 12 myristate: PD, pharmacology
forskolin: PD, pharmacology
phorbol dibutyrate: PD, pharmacology
tetradotoxin
sodium: EC, endogenous compound

vanilloid receptor: EC, endogenous compound
unindexed drug
RN (protein kinase C) 141436-78-4; (formaldehyde) 50-00-0; (amino acid) 65072-01-7; (glutamic acid) 11070-68-1, 138-15-8, 56-86-0, 6899-05-4; (4 carboxyphenylglycine) 7292-81-1; (dizocilpine) 77086-21-6; (ketamine) 1867-66-9, 6740-88-1, 81771-21-3; (substance P) 33507-63-0; (calphostin C) 121263-19-2; (streptozocin) 18883-66-4; (9 [(dimethylamino)methyl] 6,7,10,11 tetrahydro 9h,18h 5,21:12,17 dimethenedibenzo[e,k]pyrrolo[3,4-b][1,4,13]oxadiazacyclohexadecine 18,20(19h) dione) 16939-94-0; (inositol) 55608-27-0, 6917-35-7, 87-89-8; (niceritol) 5868-05-3; (ganglioside GM1) 37758-47-7; (phorbol 13 acetate 12 myristate) 16561-29-8; (forskolin) 66575-29-9; (phorbol dibutyrate) 61557-88-8; (tetradotoxin) 4368-28-9, 4664-41-9; (sodium) 7440-23-5
CN Mk 801

=> d que nos 173
L1 1 SEA FILE-HCAPLUS ABB-ON PUJ-ON US2004-510476/APP5
L3 TRANSFER PUJ-ON L1 1- RN : 53 TERMS
L4 53 SEA FILE-REGISTRY ABB-ON PUJ-ON L3
L5 1 SEA FILE-REGISTRY ABB-ON PUJ-ON L4 AND PMS/CI
L6 1 SEA FILE-REGISTRY ABB-ON PUJ-ON FORMALDEHYDE/CN
L7 1 SEA FILE-REGISTRY ABB-ON PUJ-ON PARAFORMALDEHYDE/CN
L8 1 SEA FILE-REGISTRY ABB-ON PUJ-ON TRIOXANE/CN
L9 1 SEA FILE-REGISTRY ABB-ON PUJ-ON TETRAOXANE/CN
L10 4 SEA FILE-REGISTRY ABB-ON PUJ-ON (L6 OR L7 OR L8 OR L9)
L13 50 SEA FILE-REGISTRY ABB-ON PUJ-ON L4 NOT (L5 OR L10)
L14 42 SEA FILE-REGISTRY ABB-ON PUJ-ON L13 AND M/ELS
L15 2 SEA FILE-REGISTRY ABB-ON PUJ-ON L14 AND (AG/ELS OR NA/ELS)
L16 40 SEA FILE-REGISTRY ABB-ON PUJ-ON L14 NOT L15
L20 STR
L24 81815 SEA FILE-REGISTRY 555 FUL L20
L25 STR
L27 STR
L30 53675 SEA FILE-REGISTRY SUB=L24 555 FUL (L25 OR L27)
L32 QUE ABB-ON PUJ-ON LUINSTR, G7/AU
L33 QUE ABB-ON PUJ-ON BASF/CS, SO, PA
L36 QUE ABB-ON PUJ-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION ? OR ?HEPTANDION?
L37 QUE ABB-ON PUJ-ON ?CATALY?
L38 QUE ABB-ON PUJ-ON ?POLYOXYMETHYLEN? OR (POLY(IA)OXYMET HYLEN?) OR (POLYOXY(IA)METHYLEN?)
L39 QUE ABB-ON PUJ-ON ?POLYMER OR HOMOPOLYMER? OR ?POLYMER I?
L40 QUE ABB-ON PUJ-ON FORMALDEHYD? OR TRIOXANE OR TETRAOXANE OR TETROXANE OR PARAFORMALDEHYD?
L42 QUE ABB-ON PUJ-ON "POLYMERIZATION CATALYSTS"+PPT,OLD,N EW,NT/CT
L43 QUE ABB-ON PUJ-ON POLYOXYALKYLENES+PPT,OLD,NEW,NT/CT
L44 QUE ABB-ON PUJ-ON "POLYOXYALKYLENES, PREPARATION"+PPT, OLD,NEW,NT/CT
L45 QUE ABB-ON PUJ-ON POLYOXYMETHYLENES+PPT,OLD,NEW,NT/CT
L46 QUE ABB-ON PUJ-ON "POLYOXYMETHYLENES, PREPARATION"+PPT OLD,NEW,NT/CT
L48 16 SEA FILE-REGISTRY ABB-ON PUJ-ON L4 AND L24
L49 1 SEA FILE-HCAPLUS ABB-ON PUJ-ON L48
L50 1850 SEA FILE-HCAPLUS ABB-ON PUJ-ON L16 (L) L36
L51 144654 SEA FILE-HCAPLUS ABB-ON PUJ-ON L16 (L) CAT/RL
L52 217 SEA FILE-HCAPLUS ABB-ON PUJ-ON L50 AND L51
L53 45193 SEA FILE-HCAPLUS ABB-ON PUJ-ON L30
L54 10238 SEA FILE-HCAPLUS ABB-ON PUJ-ON L53 (L) CAT/RL
L55 3687 SEA FILE-HCAPLUS ABB-ON PUJ-ON L53 (L) (L38 OR L39)
L56 1079 SEA FILE-HCAPLUS ABB-ON PUJ-ON L53 (L) L37
L57 2657 SEA FILE-HCAPLUS ABB-ON PUJ-ON (L54 OR L56) AND L55
L58 3936 SEA FILE-HCAPLUS ABB-ON PUJ-ON L53 AND L42
L59 8834 SEA FILE-HCAPLUS ABB-ON PUJ-ON L5
L60 247485 SEA FILE-HCAPLUS ABB-ON PUJ-ON ((?POLYOXYMETHYLEN?/OBI OR (POLY/OBI(IA)OXYMETHYLEN?/OBI) OR (POLYOXY/OBI(IA)METHYLEN?/OBI)) OR (L43 OR L44 OR L45 OR L46))
L61 45115 SEA FILE-HCAPLUS ABB-ON PUJ-ON L40 (L5A) L39
L62 3796 SEA FILE-HCAPLUS ABB-ON PUJ-ON L10 (L) L39
L63 279 SEA FILE-HCAPLUS ABB-ON PUJ-ON (L59 OR L60 OR L61 OR L62) AND (L49 OR L52 OR L57 OR L58)
L68 4 SEA FILE-HCAPLUS ABB-ON PUJ-ON L63 AND (L32 OR L33)

L69 159 SEA FILE-HCAPLUS ABB-ON PUJ-ON L53 AND (L32 OR L33)
L70 11 SEA FILE-HCAPLUS ABB-ON PUJ-ON L69 AND (L59 OR L60 OR L61 OR L62)
L71 11 SEA FILE-HCAPLUS ABB-ON PUJ-ON L68 OR L70
L72 1 SEA FILE-HCAPLUS ABB-ON PUJ-ON L71 AND L32
L73 11 SEA FILE-HCAPLUS ABB-ON PUJ-ON (L71 OR L72)
=> d que 1110
L32 QUE ABB-ON PUJ-ON LUINSTR, G7/AU
L33 QUE ABB-ON PUJ-ON BASF/CS, SO, PA
L36 QUE ABB-ON PUJ-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION ? OR ?HEPTANDION?
L85 QUE ABB-ON PUJ-ON TI OR TIO OR ZR OR ZRO OR VO OR V OR CRO2 OR CR OR MOO2 OR MO OR WO2 OR V OR MMO2 OR MN OR RE O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86 QUE ABB-ON PUJ-ON TITAN? OR ZIRCON? OR HAFN? OR VANAD? OR CHROMI? OR CERAMAT? OR MOLYBD? OR TUNGST? OR MANGANA? OR MANGANESE? OR RHENIUM? OR RHEMAT? OR IRON OR FERRIC OR FERULUM OR FERULOUS OR RUTEN? OR COBALT? OR RHODIUM? OR RHODAT? OR IRIDIUM? OR IRIDAT?
L87 QUE ABB-ON PUJ-ON NICKEL OR PALLAD? OR PLATINAT? OR PL ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O R LEAD
L100 QUE ABB-ON PUJ-ON (E05-F02 OR E05-L OR E05-M OR E05-N) /MC
L101 QUE ABB-ON PUJ-ON ((A922 (P) A960) (P) Q121)/M0,M1,M2,M3 ,M4,M5,M6
L102 3485 SEA FILE-WPIX ABB-ON PUJ-ON (L85 OR L86 OR L87) (10A) L36
L103 812 SEA FILE-WPIX ABB-ON PUJ-ON L100 AND L36
L104 15 SEA FILE-WPIX ABB-ON PUJ-ON L101 AND (L102 OR L103)
L110 3 SEA FILE-WPIX ABB-ON PUJ-ON L104 AND (L32 OR L33)
=> d his 1126
(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:56:50 ON 05 FEB 2007)
L126 2 S (L116 OR L117 OR L120 OR L121) AND L32-L33
=> d que nos 1126
L1 1 SEA FILE-HCAPLUS ABB-ON PUJ-ON US2004-510476/APP5
L3 TRANSFER PUJ-ON L1 1- RN : 53 TERMS
L4 53 SEA FILE-REGISTRY ABB-ON PUJ-ON L3
L5 3 SEA FILE-REGISTRY ABB-ON PUJ-ON L4 AND PMS/CI
L32 QUE ABB-ON PUJ-ON LUINSTR, G7/AU
L33 QUE ABB-ON PUJ-ON BASF/CS, SO, PA
L36 QUE ABB-ON PUJ-ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION ? OR ?HEPTANDION?
L38 QUE ABB-ON PUJ-ON ?POLYOXYMETHYLEN? OR (POLY(IA)OXYMET HYLEN?) OR (POLYOXY(IA)METHYLEN?)
L65 SEL PUJ-ON L5 1- NAME : 45 TERMS
L85 QUE ABB-ON PUJ-ON TI OR TIO OR ZR OR ZRO OR VO OR V OR CRO2 OR CR OR MOO2 OR MO OR WO2 OR V OR MMO2 OR MN OR RE O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86 QUE ABB-ON PUJ-ON TITAN? OR ZIRCON? OR HAFN? OR VANAD?

SN10/510,476 Page 213 of 244 STIC STN SEARCH

OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
FERRUM OR FERROUS OR IRIDIUM? OR COBALT? OR RHODIUM? OR
RHODAT? OR IRIDIUM? OR IRIDAT?

L87 QUE ARSB-ON PLUM-ON NICKEL OR PALLAD? OR PLATINAT? OR PL
ATINUM? OR COPPER OR NIPIC OR CUPRUS OR ZINC? OR CADMIU
M? OR CALMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
R LEAD

L116 2328 SEA L5
L117 3668 SEA (L85 OR L86 OR L87) (10A) L36
L120 11873 SEA L65
L121 11991 SEA L120 OR L38
L126 2 SEA (L116 OR L117 OR L120 OR L121) AND (L32 OR L33)

(FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, JICST-EPLUS, APOLLIT, CABA,
SCISEARCH, CONFSCI, DISSABS' ENTERED AT 12:11:58 ON 05 FEB 2007)
L152 6 S L146 AND L132-L133

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L32      QUE ABB=ON PLU=ON LAINSTRAS, G7/AU
L33      QUE ABB=ON PLU=ON BWS/CS, S0/PA
L36      QUE ABB=ON PLU=ON ?DIKETO? OR (DI(W)KETO)? OR ?DIONE O
R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
? OR ?HEPTANDION?
L45      QUE ABB=ON PLU=ON TI OR TIO OR ZR OR ZRO OR VO OR V OR
CR2O OR CR OR MOO2 OR MO OR W2O OR W OR MN2O OR MN OR IR OR
CR2O OR RE OR FE OR RO OR CO OR RH OR TA OR NI OR PD OR PT
OR CU OR ZN OR SN OR SW OR SNO OR FEO OR FE
L46      QUE ABB=ON PLU=ON TITAN? OR ZIRCON? OR HAFN? OR VANAD?
OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
OR MANGANES? OR RHENIUM? OR REENAT? OR IRON OR FERRIC OR
FERRUM OR FERROUS OR RUTHEM? OR COBALT? OR RHODIUM? OR
RHODAT? OR IRIIDIUM? OR IRIIDAT?
L47      QUE ABB=ON PLU=ON NICKEL OR PALLAD? OR PLATINAT? OR PL
ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
M? OR CADNAT? OR MERCURY? OR STANNAT? OR STANNOUS OR TIN O
R LEAD
L146     10824 SEA (METAL OR (L45 OR L46 OR L47)) (7A) L36
L152     6 SEA (L46 AND (L32 OR L33))

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L32 QUE ABB=ON PLU=ON LAINSTRA, G7/PA
L33 QUE ABB=ON PLU=ON BWSF/CS,50/AU
L36 QUE ABB=ON PLU=ON ?DIKETO? OR (DIW)KETO)? OR ?DIONE O
R ?DIGNAT? OR ?BUTANEDIQ? OR ?PENTANEDIQ? OR ?HEXANEDIQ
? OR ?HEPTANIDIQ?
L37 QUE ABB=ON PLU=ON ?CATALY?
L85 QUE ABB=ON PLU=ON TI OR TIO OR ZR OR ZRO OR VO OR VO OR V
OR CR2 OR CR OR WOOZ OR MO OR WOZ OR V OR MNOZ OR MN OR RE
OR OR RE OR FE OR CO OR H2O OR H2O OR NI OR NI OR PD OR PT
OR CU OR ZN OR OR HE OR SH OR SHO OR OR PE
L86 QUE ABB=ON PLU=ON TITAN? OR ZIRCON? OR HAFN? OR VANAD?
OR CHROMI? OR CHROMAT? OR MOLYBO? OR TUNGST? OR MANGANA?
OR MANGANEZ? OR RHEINIUM? OR RHEMAT? OR IRON OR FERRIC OR

SN10/510,476 Page 215 of 244 STIC STN SEARCH

-> d ibib ed ab 1-22

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, WPIX, BIOSIS, EMBASE, JAPIO, CABA, SCISEARCH' - CONTINUE? (Y)/N:Y

1163 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2007 ACS ON STM DUPLICATE 1
 ACCESSION NUMBER: 2003:018473 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:308120
 TITLE: Production of polyoxymethylene in the
 presence of diketonate metal complexes
Luinstra, Gerrit
 INVENTOR(S):
 PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
 SOURCE: PCT Int. Appl., 25 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2003085016	A1	20031016	WO 2003-EP3744	20030410	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,					
CO, CR, CU, CZ, DE, DK, DM, DZ, EG, EE, ES, FI, GB, GD, GE, GR,					
GM, HR, HU, IL, IN, JP, KE, KG, KP, KR, KZ, LC, LK, LR,					
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NI, NO, NZ,					
OH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SN, TH, TM, TR, TT,					
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,					
RW: GH, GM, KE, LS, MW, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AE, BY,					
BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,					
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,					
BF, BJ, CF, CG, CI, CH, CA, GN, GG, GW, ML, MR, NE, NM, TD, TG					
DE 10215976	A1	20031020	DE 2003-15976	20031111	
AU 2003227601	A1	20031020	AU 2003-227601	20030410	
EP 1497346	A1	20050119	EP 2003-725003	20030410	
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, MC, PT,					
IE, SI, LT, LV, FI, RO, MK, CY, AT, TR, BG, CZ, EE, HU, SK,					
CN 1653104	A	20050810	CN 2003-810655	20030410	
JP 2005526880	T	20050908	JP 2003-582204	20030410	
US 2005255990	A1	20051117	US 2004-10168	20041007	
PRIORITY APPL. INFO.:					
			DE 2002-10215976	A	20020411
			WO 2003-EP3744	W	20030410

OTHER SOURCE(S): MARPAT 139:308120
ED Entered STN: 17 Oct 2003
AB A method for production of polyoxomethylene comprises contacting a formaldehyde source with a catalyst of the formula $[R1(CO)CR2(CO)R3]_nXZ$, where M is TiO, Zn, HfO, W, CrO2, MoO2, W2O5, MnO2, ReO2, Fe, Ru, Co, Rh, Ir, Ni, Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO; R1, R2 and R3 are independently groups chosen from H, alkyl, aryl, or arylalkyl; R1, R2 and R3 can be completely or partly halogenated; Z is an anion; and n is 1 or 2. Thus, chlorodioxo(2,4-pentanedione)molybdenum was produced and used as a catalyst to copolymerize 1,3-dioxane and trioxane. The produced copolymer had weight-average molecular weight of 95,000 and polydispersity of 5.5.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L163 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STM
ACCESSION NUMBER: 2005:409579 HCAPLUS Full-text

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SN10/510,476 Page 214 of 244 STIC STN SEARCH
FENIUM? OR FERROUS? OR RUTHENI? OR COBALT? OR RHODIUM? OR
L87 RHODAT? OR IRIDIUM? OR INDIAT?
QUE ABB-ON PUW-ON NICKEL? OR PALLAD? OR PLATINAT? OR PL
ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
M? OR CADMAT? OR MERCURY? OR STANAT? OR STAINOUS OR TIN O
R LEAD
L129 974 SEA FILE-JAPIO ABB-ON PUW-ON (METAL OR (L85 OR L86 OR L87))
SEA L396
L144 2 SEA FILE-JAPIO ABB-ON PUW-ON L129 AND (L32 OR L33)
L145 2 SEA FILE-JAPIO ABB-ON PUW-ON L144 AND (L37 OR ACTIV?)

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FILE 'SCISEARCH' ENTERED AT 12:51:08 ON 05 FEB 2007
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FILE 'JAP10' ENTERED AT 12:51:08 ON 05 FEB 2007
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PROCESSING COMPLETED FOR L73
PROCESSING COMPLETED FOR L110
PROCESSING COMPLETED FOR L126
PROCESSING COMPLETED FOR L152
PROCESSING COMPLETED FOR L145
L163      22 DUP REM L73 L110 L126 L152 L145 (2 DUPLICATES REMOVED)
ANSWERS '11-11' FROM FILE HCAPLUS
ANSWERS '12-13' FROM FILE WPX
ANSWER '14' FROM FILE BIOSIS
ANSWER '15' FROM FILE EMBASE
ANSWERS '16-17' FROM FILE CABA
ANSWERS '18-20' FROM FILE SCISEARCH
ANSWERS '21-22' FROM FILE JAP10
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb  2, 2007 (20070202/UP).

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SN10/510,476 Page 216 of 244 STIC STN SEARCH

DOCUMENT NUMBER: 142:464164

TITLE: Method for the production of prepolymers containing isocyanate groups

INVENTOR(S): Wind, Michael; Kreyenscheidt, Martin; Murrar, Imbricitz, Reese, Hans-Juergen; Urtel, Heiko; Malz, Hauke

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 29 pp.

CODEN: P1XXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042604	A1	20050512	WO 2004-EP12335	20041030
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, FG, GD, GE, GH, GM, GR, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, KZ, LG, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VU, VN, YU, ZA, ZH, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, NG, SN, SZ, TZ, UG, ZH, ZW, AZ, BY, BG, CZ, DE, DK, EE, ES, FI, FR, GB, GR, GU, HT, IL, JP, KE, KR, KZ, LG, LI, LU, LT, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VU, VN, YU, ZA, ZH, ZW			
DE 10351530	A1	20050616	DE 2003-10351530	20031103
EP 1685174	A1	20060802	EP 2004-719108	20041030
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1978808	A	20061213	CN 2004-80032844	20041030
PRIORITY APPLN. INFO.:			WO 2003-10351530	A 20031103
			DE 2004-EP12335	A 20041030
OTHER SOURCE(S):	MARPAT	142:464164		
ED	Entered STM:	13 May 2005		
AB	The invention relates to a method for the production of prepolymers containing isocyanate groups by reacting: (a) diisocyanates with (b) compds. having at least two hydrogen atoms which react with isocyanate groups in the presence of (c) catalysts, and by subsequent separation of the surplus monomer diisocyanates. The invention is characterized in that (a) asym. diisocyanates (such as 2,4'-MDI) are used as diisocyanates and (b) organometallic catalysts (such as dibutyltin dilaurate) are used as catalysts and that said organometallic catalysts are removed, blocked or deactivated prior to separation of the monomer diisocyanates. This process provides products with monomer content <0.1, low d.p. and free from significant distribution.			
REFERENCE COUNT:	4	THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS PUBLICATION.		
		REPROD. ALL CITATIONS AVAILABLE IN THE EP FORMAT		

L163 ANSWER 3 OF 22 HCAP15US COPYRIGHT 2007 ACS ON STM
ACCESSION NUMBER: 2005:52009 HCAP15US Full-text
DOCUMENT NUMBER: 142:135147
TITLE: Triazacyclohexane chromium as oligomerization catalyst
for short chain olefin
INVENTOR(S): Maas, Heiko; Mihan, Shahram; Koehn, Randolph; Seifert,
Guido; Tropesch, Juergen
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: U.S., 10 pp., Cont.-in-part of U.S. Ser. No. 277,823,
abandoned.
CODING: USX00M

SN10/510,476 Page 217 of 244 STIC STN SEARCH

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6844290	B1	20050118	US 2001-937815	20010928
DE 19922048	A1	20010116	DE 1999-19922048	19990514
DE 19943544	A1	20010315	DE 1999-19943544	19990911
WO 2000058319	A1	20001005	WO 2000-EP2660	20000325
W: CN, JP, KR, SG, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 2000041120	A	20001016	AU 2000-41120	20000328
AU 773920	B2	20040610		
EP 1171483	A1	20020116	EP 2000-920600	20000328
EP 1171483	B1	20040825		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 200009460	A	20020528	BR 2000-9460	20000328
JP 2002540261	T	20021126	JP 2000-608662	20000328
AT 274533	T	20040915	AT 2000-920600	20000328
US 6887958	B1	20050503	US 2001-937780	20000328
ZA 2001008840	A	20021028	ZA 2001-8840	20011026
ZA 2001008839	A	20030930	ZA 2001-8839	20011026

PRIORITY APPLN. INFO.:

OTHER SOURCE(S):

MARPAT 142:135147
 ED Entered STN: 20 Jan 2005
 AB An oligomerization catalyst for olefins that is stable, inexpensive with improved activity and selectivity, is obtainable from (a) a chromium compound CrK3 and the at least equimolar amount, based on the chromium compound CrK3, of a ligand L or from an existing chromium complex CrK3L, in which the groups X are, independently of one another, abstractable counterions and L is a 1,3,5-triazacyclohexane of formula 1, where the groups R1 to R9 are, independently of one another: hydrogen or organosilicon or substituted or unsubstituted carbonyl groups having from 1 to 30 carbon atoms, where two geminal or vicinal radicals R1 to R9 may also be joined to form a five- or six-membered ring, and (b) at least one activating additive selected from the group consisting of (i) and (ii) wherein: (i) is a combination of an unsubstituted or substituted five-membered aromatic N-heterocycle and at least one aluminum alkyl, wherein some of the alkyl groups of the aluminum alkyl are optionally replaced by halogen and/or alkoxy, and (ii) is an alkylaluminumoxane. A process for preparing oligomers of olefins using these catalysts, the oligomers thus obtainable, and the oxo alcs. obtainable from these oligomers are also discussed.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L163 ANSWER 4 OF 22

HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2004:351720 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:359001
 TITLE: Water-thinned acrylic coating compositions with excellent curability, gloss, and anti-soiling properties

217

SN10/510,476 Page 218 of 244 STIC STN SEARCH

INVENTOR(S): Dejima, Koichi; Furukawa, Shigeyuki
 PATENT ASSIGNEE(S): BASF NOF Coating Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004131601	A	20040430	JP 2002-297628	20021010
PRIORITY APPLN. INFO.: MARPAT 140:359001				
OTHER SOURCE(S):				
ED Entered STN: 30 Apr 2004				
AB The compns. contain acrylic polymers (A) bearing OH groups and carbonyl groups, yellowing-resistant polyisocyanates (B), catalysts (C) consisting of Zr salts of compds. bearing active methylene groups, and optionally modified silicates (D) or alkoxyisilanes bearing 0.1-0.9 poly(Cl-4-aryalkylene) groups, 20.1 C5-20-alkoxy groups, and 21 Cl-4-alkoxy groups and/or inorg. oxide sols (E). Thus, a composition containing Bayhydur VPLS 2235 (acrylic polymer emulsion) 50, TiO2 35, Basomat H 100 (hexamethylene diisocyanate trimer) 25, and 10% Zr acetylacetonate 1 part was applied to an Al plate and dried at 23° for 7 days to give a coating with 60° gloss 85 and good removal of carbon black (deposited on the surface) by washing in water.				

L163 ANSWER 5 OF 22

HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2001:453140 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:46655
 TITLE: Aqueous dispersions of ethylene polymers, their use and their production by emulsion polymerization using metal complexes
 INVENTOR(S): Kristen, Marc Oliver; Manders, Lambertus; Mecking, Stefan; Bauers, Florian M.; Muehlhaupt, Rolf
 PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
 SOURCE: FCT Int. Appl., 55 pp.
 CODEN: PIXX02
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001044325	A1	20010621	WO 2000-EP10244	20001018
W: JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19961340	A1	20010719	DE 1999-19961340	19991217
EP 1240215	A1	20020918	EP 2000-993408	20001018
EP 1240215	B1	20060426		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003517062	T	20030520	JP 2001-544812	20001018
AT 324388	T	20060515	AT 2000-993408	20001018
US 7129292	B1	20061031	US 2002-168113	20020617
PRIORITY APPLN. INFO.: DE 1999-19961340 A 19991217 WO 2000-EP10244 W 20001018				

OTHER SOURCE(S): MARPAT 135:46655

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SN10/510,476 Page 219 of 244 STIC STN SEARCH

ED Entered STN: 22 Jun 2001

AB Olefins such as ethylene are subjected to aqueous emulsion polymerization by reaction with at least one complex of the general formula I or II (M = transition metal of Groups 7 to 10 in the periodic table of elements, preferably Ni; L1 = phosphine, amine, ether, alc., water, pyridine, CO, nitrile, ethylenically unsatd. double bond system; L2 = dione, amine, organic anion; L1L2 may be joined to a ring; E = W, P, As, Sb; Y = O, S, imino, phosphino; R1 to R3 and optionally one radical of R4 to R9 contain a hydrophilic group selected from SO3-, OPO32-, substituted amino, or - (OCH2CH2)2OH, whereby n represents a whole number between 1 and 15). An activator, for example olefin complexes of rhodium or nickel, may also be used in addition to an optional emulsifier. The catalysts are surprisingly amenable to emulsion polymerization processes at 25-70°. Examples were given for the production of polyethylene and ethylene-norbornene copolymers.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L163 ANSWER 6 OF 22

HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2001:93899 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:131251
 TITLE: Procedure and catalyst system for the production of carboxylic acids by the carbonylation of olefins with carbon monoxide and water
 INVENTOR(S): Schaefer, Martin; Schulz, Michael
 PATENT ASSIGNEE(S): Basf A.-G., Germany
 SOURCE: Ger. Offen., 8 pp.
 CODEN: GWOXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19936979	A1	20010208	DE 1999-19936979	19990805
WO 2001010807	A1	20010215	WO 2000-EP7025	20000721
W: CN, JP, KR, SG, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1200382	A1	20020502	EP 2000-951426	20000721
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 200306422	T	20030218	JP 2001-515277	20000721
PRIORITY APPLN. INFO.: DE 1999-19936979 A 19990805 WO 2000-EP7025 W 20000721				

OTHER SOURCE(S):

CASREACT 134:131251; MARPAT 134:131251
 ED Entered STN: 08 Feb 2001
 AB Carboxylic acids (e.g., propionic acid) are prepared by the carbonylation of olefins with carbon monoxide in presence of water using a catalyst system comprising: (A) rhodium or a rhodium compound (e.g., rhodium dicarbonylacetate); (B) at least one nitrogenous heterocyclic compound (e.g., pyridine); (C) at least one alkali or alkaline-earth salt of an aliphatic C2-20 carboxylic acid (e.g., potassium propionate); and (D) at least a glycol diether R10(CH2CH2)2OR2 (R1, R2 = C1-20 alkyl, R3CO; R3 = H, alkyl; n = 1-30; R1R2 = C1-20 alkylene chain) (e.g., diglyme).

L163 ANSWER 7 OF 22

HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1995:586282 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:316413

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TITLE: Use of aqueous polyurethane dispersion as an adhesive.
 INVENTOR(S): Licht, Ulrike; Wallon, Alexander; Aucther, Gerhard; Maempel, Lothar; Seibert, Horst; Haeblerle, Karl; Fries, Werner
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Eur. Pat. Appl., 16 pp.
 CODEN: EPXX01
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 622436	A1	19941102	EP 1994-105770	19940414
EP 622436	B1	19961009		
R: BE, DE, ES, FR, GB, IT, NL, SE				
DE 4314237	A1	19941103	DE 1993-4314237	19930430
ES 2092350	T3	19961116	ES 1994-105770	19940414
CA 2121959	A1	19941031	CA 1994-2121959	19940422
JP 06313161	A	19941108	JP 1994-90074	19940427
AU 9460777	A	19941103	AU 1994-60777	19940428
AU 671005	B2	19960808		
PRIORITY APPLN. INFO.: DE 1993-4314237 A 19930430				

ED Entered STN: 03 Jun 1995

AB The polyurethane is based on organic polyisocyanates, polyhydroxy compds. (mol. weight 500-5000), compds. with 21 isocyanate-reactive group and 21 ionic group or group convertible thereto, and optionally compds. with 22 isocyanate reactive groups (mol. weight 60-500) and the dispersion also contains a chelate of a polyvalent metal. The chelate improves the adhesive properties. Thus, a polyurethane was based on poly(butylene adipate), TDI, hexamethylene diisocyanate, and the Na salt of an ethylenediamine-acrylic acid Michael reaction adduct plus HCHO-PHOF resin and 1% (on polyurethane) Al acetylacetonate and the composition was used as a water-based adhesive with good properties.

L163 ANSWER 8 OF 22

HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1991:536992 HCAPLUS Full-text
 DOCUMENT NUMBER: 115:136992
 TITLE: Catalyst solution for polyurethane formation
 INVENTOR(S): Blum, Rainer
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Ger. Offen., 4 pp.
 CODEN: GWOXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3938203	A1	19910523	DE 1989-3938203	19891117
PRIORITY APPLN. INFO.: DE 1989-3938203 19891117				
ED Entered STN: 05 Oct 1991				
AB The title solns. contains ferric compound 1-25, aromatic carbonyl compound or alc. 1-35, imidazole or benzimidazole 0-35, and polyol(s) 5-98%. The solns. are storage stable. Thus, a mixture of salicylaldehyde 10, poly(propylene oxide) triol (I) 100, ferric acetylacetonate (II) 5, and 1,2-dimethylimidazole 10 parts was heated 2 h at 60° to give a dark brown solution which did not				

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precipitate after 3 mo. A solution prepared from 100 parts I and 2.5 parts, II did precipitate in this time.

L163 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1985:542835 HCAPLUS Full-text
 DOCUMENT NUMBER: 103:142835
 TITLE: Reducing the viscosity of filled liquid polymers
 INVENTOR(S): Brizgys, Bernardas; Gallagher, James Aloysius
 PATENT ASSIGNEE(S): BASF Wyandotte Corp., USA
 SOURCE: Brit. UK Pat. Appl., 7 pp.
 CODEN: BAWXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2147592	A	19850515	GB 1983-26726	19831006
PRIORITY APPL. INFO.:			GB 1983-26726	19831006

ED Entered STN: 01 Nov 1985

AB Organic Zr compds. which are dispersible or soluble in liquid polyester or polyether polyols containing 22 active H atoms/mol. are effective in reducing the viscosity of the polyols containing inorg. fillers. Thus, 2.5 g Zr neodecanoate (I) [39049-04-2] was mixed with a composition containing polypropylene glycol ether with propylene glycol [52309-41-8] (mol. weight 2000), calcined clay 253, yellow Fe oxide pigment 4, and PhHg carboxylate (Cosan 27, containing 45 weight % Hg) 1.2 g. The viscosity of the composition, when measured with a Brookfield viscometer at 2, 4, 10, and 20 rpm, was 4500, 2400, 2200, and 1720 cP at 25°, resp., vs. 9500, 6250, 3800, and 2850 cP, resp., for a similar composition without I. The composition, together with an organic polyisocyanate and a catalyst, was suitable for the preparation of cellular and noncellular polyurethanes.

L163 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1984:104548 HCAPLUS Full-text
 DOCUMENT NUMBER: 100:104548
 TITLE: Organic zirconium compounds to reduce viscosity of filled liquid polymers
 INVENTOR(S): Brizgys, Bernardas; Gallagher, James A.
 PATENT ASSIGNEE(S): BASF Wyandotte Corp., USA
 SOURCE: U.S., 5 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4423180	A	19831227	US 1982-407654	19820812
PRIORITY APPL. INFO.:			US 1982-407654	19820812

OTHER SOURCE(S): MARPAT 100:104548

ED Entered STN: 12 May 1984

AB The viscosity of polyether polyols is lowered by the addition of an organic Zr compound. Thus, to 543 g polyether polyol prepared by oxypropylating propylene glycol was added calcined clay 253, yellow Fe oxide pigment 4, a phenylmercury carboxylate 1.2 g, and zirconium neodecanoate (I) [39049-04-2] 2.5 g. The

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DE 19960123 A1	DE 1999-19960123 19991213
EP 1237952 A1	EP 2000-983173 20001127
WO 2001044317 A1	WO 2000-EP11812 20001127
EP 1237952 A1	WO 2000-EP11812 20001127
JP 2003517056 W	WO 2000-EP11812 20001127
JP 2003517056 W	JP 2001-544804 20001127

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1237952 A1	Based on	WO 2001044317 A
JP 2003517056 W	Based on	WO 2001044317 A

PRIORITY APPL. INFO: DE 1999-19960123 19991213
 ED 20050706

AB DE 19960123 A1 UPAB: 20060117
 NOVELTY - Production of highly branched amorphous polyethylene with elastomeric properties involves oligomerization of ethene in the presence of a 2,6-bis-(1-aryliminoethyl)-pyridine transition metal complex with no substituents at the two ortho positions in the aryl groups, followed by further polymerization in presence of a metallocene catalyst.

DETAILED DESCRIPTION - A homogeneous catalytic process for the production of highly-branched amorphous polyolefins with elastomeric properties from ethene involves:

(a) oligomerization of ethene in inert solvent in presence of transition metal compound(s) of formula (I) and optionally cocatalyst(s) in the form of strong neutral Lewis acids or ionic compounds with Lewis or Brønsted acid cations, using compounds (II);

(b) addition of transition metal compound(s) of formula (II) and optionally other cocatalysts as above followed by further reaction in presence of ethene, using compounds (II); and

(c) isolation of the product.

R1, R2 = 4-16C heteroaryl or 6-16C aryl with hydrogen atoms in the two vicinal positions to the linking points between aryl or heteroaryl and Na or Nb;

R3, R4 = H, 1-10C alkyl, 3-10C cycloalkyl, 6-16C aryl, (1-10C alkyl)-(6-14C aryl), or Si(R8)3 with R5 = alkyl, cycloalkyl, aryl or alkyl-aryl as above;

R5-R7 = as for R3-R4, or functional groups based on Group IVA-VIIA elements, or R5 and R6 and/or R6 and R7 together may form condensed 5-, 6- or 7-membered, optionally substituted aliphatic or aromatic carbonyl or heterocycles;

M1 = iron, ruthenium, cobalt, rhodium, nickel or palladium;
 T, Q = neutral or mono-anionic monodentate ligands, or T and Q together may form a *diketo*-enolate unit or a 2C or 3C alkylene unit with a methyl ketone or linear 1-4C alkyl ester or nitrile end group;

A = a non- or poorly-coordinating anion;

a, p = 0, 1, 2 or 3;

q, n = 1, 2 or 3;

R9-R12 = as for R5-R7;

M1 = a Group IIB, IVB, VB or VIB element;

T1, Q1 = H, 1-10C alkyl, 6-20C aryl, halogen, -OR', -SR', -OSi(R')3, -Si(R')3, -C(R')2Si(R')3, -P(R')2, -N(R')2, toluenesulfonyl, trifluoroacetyl, trifluoromethanesulfonyl, nonafluorobutanesulfonyl or 2,2,2-trifluoroethanesulfonyl;

2 = -C(R')2-, -Si(R')2-, -Ge(R')2-, -Sn(R')2-, -BR' or -OR';

R' = 1-20C alkyl or alkoxy, 3-10C cycloalkyl or cycloalkoxy, 6-16C aryl or aryloxy, or (1-10C alkyl)-(6-10C aryl or aryloxy);

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mixture was stirred with a high shear mixer to give a composition having Brookfield viscosity 4500 cP at 2 rpm spindle speed. When I was omitted, the viscosity was 9500 cP.

L163 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1980:43081 HCAPLUS Full-text
 DOCUMENT NUMBER: 92:43081
 TITLE: Nonflammable insulating material
 INVENTOR(S): Woerner, Frank Peter; Mahke, Harald; Weber, Heinz; Sand, Hermann; Trautz, Volker; Geierhaas, Herbert
 PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 10 pp.
 CODEN: GWXKX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2814814	A1	19791018	DE 1978-2814814	19780406
EP 4602	A1	19791017	EP 1979-100867	19790322

PRIORITY APPL. INFO.:

ED Entered STN: 12 May 1984

AB Nonflammable insulating materials comprised inorg. lightwt. particles, e.g. perlite or vermiculite, 50-98.8, fibrous or granular inorg. additives 0-40, a polymeric binder 1-30, and a transition metal compound 0.1-15%. Thus, when subjected to smoldering, an insulating sheet comprising perlite 85, formaldehyde-phenol copolymer [9003-35-4] 14, formaldehyde-nonylphenol-phenol copolymer [37238-34-9] 1, and CuO 1 part showed much lower emissions of CO and CO2 than a similar composition containing no CuO.

L163 ANSWER 12 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
 ACCESSION NUMBER: 2001-550895 [62] WPIX
 DOC. NO. CPI: C2001-164175 [62]
 TITLE: Production of highly-branched elastomeric polyolefin, for use e.g. as impact modifier, involves oligomerization of ethene with a special arylimino-pyridine metal complex and polymerisation with metallocene catalyst
 DERIVAT CLASS: A17; E11; E12
 INVENTOR: GEPRAGS M; HEINMANN J; LUTSTRUP G; MUEHLHAUT R; QUEISSER J
 PATENT ASSIGNEE: (BADI-C) BASF AG
 COUNTRY COUNT: 22
 PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 19960123	A1	20010621	(200162)	DE	15[0]	
WO 2001044317	A1	20010621	(200162)	DE		
EP 1237952	A1	20020911	(200267)	DE		
JP 2003517056	W	20030520	(200334)	JA	44	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
			222

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k = 1, 2 or 3;
 G = -O-, -S-, -NR-, -PR-, -BR-, -OR-, -SR-, -N(R)2-, -P(R)2- or a group of formula (III);
 R = H, 1-20C alkyl, 3-10C cycloalkyl, 6-15C aryl, (1-10C alkyl)-(6-10C aryl) or 3-30C organosilyl, or 2k and G may form an optionally substituted aromatic or heteroaromatic system with 4-16 ring carbons, or 2k and R9 and/or R12 may form a mono- or poly-cyclic aliphatic, aromatic or heteroaromatic ring system.

USE - For the production of highly branched amorphous polyolefins with elastomeric properties, which are used, e.g. as impact modifiers for linear polyolefins, polyamides, polyacetals or polyesters.

ADVANTAGE - A simple and efficient process for the production of highly branched amorphous polyolefins based on ethylene, using a 2- or multi-component catalyst system which is easy to handle, shows high activity and give polyolefins with a high degree of branching.

L163 ANSWER 13 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
 ACCESSION NUMBER: 2000-602962 [58] WPIX
 DOC. NO. CPI: C2000-180566 [58]
 TITLE: Olefin polymerization or copolymerization with polar monomers performed in presence of new palladium complexes with a neutral diaza-diene ligand, an alkoxy-cycloalkene carbanion and a special acid anion
 A12; A17; A26; E11; E12
 INVENTOR: GONIGOUX A; POPHAM N
 PATENT ASSIGNEE: (BADI-C) BASF AG
 COUNTRY COUNT: 23
 PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 19907999	A1	20000831	(200058)	DE	10[0]	
WO 2000050474	A1	20000831	(200058)	DE		
EP 1163277	A1	20011219	(200206)	DE		
KR 2001102384	A	20011115	(200231)	KO		
JP 2002537451	W	20021105	(200304)	JA	30	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 19907999 A1			DE 1999-19907999 19990225
EP 1163277 A1			EP 2000-916842 20000217
JP 2002537451 A1			JP 2000-601051 20000217
WO 2000050474 A1			WO 2000-EP1291 20000217
EP 1163277 A1			WO 2000-EP1291 20000217
JP 2002537451 W			WO 2000-EP1291 20000217
KR 2001102384 A			KR 2001-710821 20010824

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1163277 A1	Based on	WO 2000050474 A
JP 2002537451 W	Based on	WO 2000050474 A

PRIORITY APPL. INFO: DE 1999-19907999 19990225
 ED 20050411

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AB DE 19907999 AI UPAB: 20050411

NOVELTY - Olefins are (co)polymerized in the presence of palladium complexes containing a neutral, bidentate, N,N'-disubstituted diazadiene ligand, an alkoxyalkene carbanion attached to Pd by sigma- and pi-bonds and an anion of a weakly- or non-coordinating acid which is unesterifiable or hardly esterifiable.

DETAILED DESCRIPTION - Polymerization of 2-12C mono-olefins or copolymerization of these olefins with polar unsaturated monomers is carried out in the presence of a palladium complex of formula (I), optionally in combination with an alkylaluminum compound.

(L1PdL2) + An- (I)

L1 = a neutral, bidentate, N,N'-disubstituted diazadiene ligand chelating with Pd;

L2 = an alkoxyalkene-carbanion with 7-8 carbon atoms, attached to the Pd atom by a sigma-bond and also complexed with the Pd via a pi-bond to the C-C double bond;

An = an anion of a weakly- or non-coordinating acid which is unesterifiable or hardly esterifiable.

An INDEPENDENT CLAIM is also included for new palladium complexes of formula (I) in which:

L1 = R1-N=CR3-CR4-N-R2 (II);

R1, R2 = (1-8C hydrocarbyl)-substituted phenyl;

R3, R4 = H or 1-16C hydrocarbyl, or R3 + R4 = 1-18C hydrocarbylene; and

L2 = 1-(1-8C alkoxy)-cycloocta-4-ene 8sigma,4pi-ligand.

USE - For the polymerization or copolymerization of mono-olefins.

Copolymers with polar comonomers obtained by this process are used e.g. as flow or viscosity improvers for oils, as plasticizers or lubricants and for the production of polymer blends.

ADVANTAGE - Enables the polymerization of ethylene to branched polyethylene with a relatively low molecular weight and the copolymerization of ethylene with comonomers such as methyl acrylate to give low molecular weight polymers with a relatively broad molecular weight distribution.

L163 ANSWER 14 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:407495 BIOSIS Full-text

DOCUMENT NUMBER: PREV199900407495

TITLE: Prohexadione-Ca: Induction of resistance against bacterial and fungal pathogens in apple.

AUTHOR(S): Rademacher, W. [Reprint author]; Speakman, J. B. [Reprint author]; Krack, G.; Scholtissek, M.; Wolf, R.; Evans, J. R.; Roemmel, S.; Treutter, D.

CORPORATE SOURCE: BASF Agricultural Center, 67114, Limburgerhof, Germany

SOURCE: Hortscience, (June, 1999) Vol. 34, No. 3, pp. 535-536. print.

Meeting Info.: 96th Annual International conference of the American Society for Horticultural Science. Minneapolis, Minnesota, USA. July 27-31, 1999. American Society for Horticultural Science.

CODEN: HJHSAH. ISSN: 0018-5345.

DOCUMENT TYPE: Conference; (Meeting)

LANGUAGE: English

ENTRY DATE: Entered STN: 8 Oct 1999

Last Updated on STN: 8 Oct 1999

ED Entered STN: 8 Oct 1999

Last Updated on STN: 8 Oct 1999

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Meeting Info.: Proceedings of the Xth International Workshop on Fire Blight, Bologna, Italy, 5-9 July 2004.

ISSN: 0567-7572; ISBN: 90-6605-407-7

URL: <http://www.actahort.org>

PUB. COUNTRY: Belgium

DOCUMENT TYPE: Journal

LANGUAGE: English

ENTRY DATE: Entered STN: 8 Jan 2007

Last Updated on STN: 8 Jan 2007

ED Entered STN: 8 Jan 2007

Last Updated on STN: 8 Jan 2007

AB Treatments with prohexadione-calcium lead to lower incidence of fire blight, scab and other diseases in pome fruit trees and other crop plants. In addition to acting as a growth regulator, prohexadione-calcium interferes with flavonoid metabolism and induces the accumulation of the 3-deoxycatechin, luteoflavan, in shoots of pome fruit trees. Luteoflavan does not possess any remarkable antimicrobial activity. Therefore, luteoflavan, its unstable and highly reactive precursor, was tested in vitro for its bactericidal and fungicidal activity. Luteoflavan was found to be highly active against different strains of *Erwinia amylovora*, the causal agent of fire blight, and all other bacterial (*Pantoea agglomerans* and *Pseudomonas fluorescens*) and fungal organisms (*Venturia inaequalis*) tested. Its activity was more than 10-times higher than that of the structurally related phytoalexins luteolinidin and apigeninidin. Phytotoxic effects were observed in pear plantlets. These results indicate that prohexadione-calcium induces luteoflavan as an active principle with non-specific biocidal properties. It is proposed that luteoflavan is released upon pathogen attack from its cellular compartment and inhibits further disease development by destroying pathogen cells as well as by inducing a hypersensitive-like reaction in the host plant tissue.

L163 ANSWER 17 OF 22 CABA COPYRIGHT 2007 CABI on STN

ACCESSION NUMBER: 93:115395 CABA Full-text

DOCUMENT NUMBER: 19930767673

TITLE: Plant growth retardants: their mode of action and benefit for physiological research

AUTHOR: Grossmann, K.; Karssen, C. M. [EDITOR]; Loon, L. C. van [EDITOR]; Vreugdenhil, D. [EDITOR]

CORPORATE SOURCE: BASF Agricultural Research Station, 6703 Limburgerhof, Germany

SOURCE: Progress in plant growth regulation. Proceedings of the 14th international conference on plant growth substances, Amsterdam, 21-26 July, 1991, (1992) pp. 788-797. Current Plant Science and Biotechnology in Agriculture Volume 13. 26 ref. Publisher: Kluwer Academic Publishers. Dordrecht Meeting Info.: Progress in plant growth regulation. Proceedings of the 14th international conference on plant growth substances, Amsterdam, 21-26 July, 1991.

ISBN: 0-7923-1617-7

PUB. COUNTRY: Netherlands Antilles

DOCUMENT TYPE: Conference Article

LANGUAGE: English

ENTRY DATE: Entered STN: 1 Nov 1994

Last Updated on STN: 1 Nov 1994

ED Entered STN: 1 Nov 1994

Last Updated on STN: 1 Nov 1994

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L163 ANSWER 15 OF 22 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 94314066 EMBASE Full-text

DOCUMENT NUMBER: 1994314066

TITLE: Adult worm homogenate of the nematode parasite

heligmosomoides polygyrus induces proliferation of naive T lymphocytes without MHC restriction.

AUTHOR: Robinson M.; Gustaf T.R.; Wei F.-Y.; David C.S.; Storey N.

CORPORATE SOURCE: BASF Bioresearch Corporation, 100 Research Drive, Worcester, MA 01536, United States

SOURCE: Cellular Immunology, (1994) Vol. 158, No. 1, pp. 157-166. ISSN: 0008-8749 CODEN: CLIMB8

COUNTRY: United States

DOCUMENT TYPE: Journal Article

FILE SEGMENT: 004

LANGUAGE: English

SUMMARY LANGUAGE: 026 Immunology, Serology and Transplantation

ENTRY DATE: Entered STN: 16 Nov 1994

Last Updated on STN: 16 Nov 1994

ED Entered STN: 16 Nov 1994

Last Updated on STN: 16 Nov 1994

AB The documented in vitro response of mouse T cells to parasite antigens is typically anamnestic and H-2 restricted. As yet, there have been no confirmed reports of the existence of a non-H-2-restricted, superantigen type of response to the antigens of nematode parasites. Reported here are data which show that antigens produced by the adult stage of the nematode parasite *Heligmosomoides polygyrus* (= *Nematostroides dubius*) can stimulate naive T cells in vitro to proliferate and produce IL-2. A series of T cell hybridomas has been used to show that adult worm homogenate of *H. polygyrus* can stimulate parasite antigen naive T cells. This response is independent of the H-2 haplotype of the antigen-presenting accessory cells and does not appear to be influenced by the presence or absence of an H-2 E molecule. However, successful presentation of the *H. polygyrus* superantigen does require the presence of metabolically active accessory cells and fixation of the accessory cells with paraformaldehyde abrogates the response of the target cells. This discovery has important implications for the study of the role of superantigens in host/parasite interactions and will also help to expand current knowledge about the relationship between chronic intestinal nematodes and the host immune system.

L163 ANSWER 16 OF 22 CABA COPYRIGHT 2007 CABI on STN

ACCESSION NUMBER: 2007:15944 CABA Full-text

DOCUMENT NUMBER: 20062326620

TITLE: Prohexadione-calcium induces in apple the biosynthesis of luteoflavan, a novel flavan 4-ol,

which is active against *Erwinia amylovora* Spinelli, F.; Costa, G.; Speakman, J. B.;

Rademacher, W.; Halbwirth, H.; Stich, K.; Bazzi, C.

[EDITOR]; Mazzucchi, U. [EDITOR]

CORPORATE SOURCE: Dipartimento di Colture Arboree, Facoltà di Agraria, Università di Bologna, viale Fanin 46, 40127,

Bologna, Italy. spinelli@agrsci.unibo.it; wilhelm.rademacher@basf.com

SOURCE: Acta Horticulturae, (2006) No. 704, pp. 239-243. 17 ref.

Publisher: International Society for Horticultural Science (ISHS). Leuven

Price: Journal article; Conference paper ; 121 EURO

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AB The chemical nature of growth retardants and their interference with gibberellin biosynthesis are briefly discussed. Growth retardants with a nitrogen-containing heterocycle, including BAS111, *N* [phenoxymethyl triazolylohexanol], mequat chloride, prohexadione calcium, cisactacarb, LAB 198 999, triapenthenol, paclobutrazol, ancyamidol and tetcycladis, are considered in more detail. Their effects on plant cytochrome P450-dependent monooxygenases, shoot growth, cell elongation and division, plant development and physiology, ABA metabolism and water relations are discussed with reference to crop species including chrysanthemums, sunflowers, soybeans, rice, pumpkins and wheat.

L163 ANSWER 18 OF 22 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:976259 SCISEARCH Full-text

THE GENUINE ARTICLE: 965JF

TITLE: Me3SiC-C-OMe-CH2 copper(I) beta-diketonates: Synthesis, solid state structure, and

low-temperature chemical vapour deposition

AUTHOR: Shen Y; Ruffer T; Schulz S; Gessner T; Wittenbecher L;

Stetzel H J; Lang H (Reprint)

CORPORATE SOURCE: Tech Univ Chemnitz, Fak Naturwissenschaften, Inst Chem,

Lehrstuhl Anorgan Chem, Str Nationen 62, D-09111 Chemnitz,

Germany (Reprint); Tech Univ Chemnitz, Fak

Naturwissenschaften, Inst Chem, Lehrstuhl Anorgan Chem,

D-09111 Chemnitz, Germany; Tech Univ Chemnitz, Fak

Elektrotech & Informationstech, Lehrstuhl Mikrotechnol,

Zentrum Mikrotechnol, D-09111 Chemnitz, Germany;

BASF AG, GCZ M311, D-67056 Ludwigshafen, Germany;

BASF AG, ZARA M311, D-67056 Ludwigshafen, Germany

heinzrich.lang@chemie.tu-chemnitz.de

COUNTRY OF AUTHOR: Germany

SOURCE: JOURNAL OF ORGANOMETALLIC CHEMISTRY, (1 SEP 2005) Vol.

690, No. 17, pp. 3878-3885.

ISSN: 0022-328X.

PUBLISHER: ELSEVIER SCIENCE SA, PO BOX 564, 1001 LAUSANNE,

SWITZERLAND.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 44

ENTRY DATE: Entered STN: 6 Oct 2005

Last Updated on STN: 6 Oct 2005

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

ED Entered STN: 6 Oct 2005

Last Updated on STN: 6 Oct 2005

AB The ene-yne copper(I) beta-diketonates [(eta(2) -TMSB)Cu(beta-diketonate)]

(beta-diketonate = acetylacetonate/acac, 5; 1,3-di-

tertbutylacetonate/dbac, 6; 1,1,1,5,5,5-hexafluoroacetylacetonate/hfac, 7;

TMSB=4-Triisobutyl-2-Methyl-But-1-ene-3-yne, Me3SiC-C-OMe-CH2) are

accessible by the reaction of [(eta(2) -TMSB)Cu(mu-Cl)](2) (3) with

[Na(beta-diketonate)] (beta-diketonate = acac, 4a; = dbac, 4b; = hfac, 4c)

in a 1:2 molar ratio. Complexes 6 and 7 are also formed, when Cu2O (8) is

reacted with H-hfac (9a) or H-dbac (9b), respectively. The solid state

structure of 7 is reported. The copper(I) ion possesses a planar

environment caused by the eta(2)-coordinated TMSB ligand and the chelate-bound hfac group, while the CMe-CH2 entity stays free.

The thermal properties of 5-7 were determined by applying Thermogravimetry (TG) and Differential Scanning Calorimetry (DSC). All complexes decompose

in a two-step process beginning at ca. 85 degrees C. Elimination of TMSB

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produces [Cu(beta-diketonate)] which disproportionates to give [Cu(beta-diketonate)2] and elemental copper.
Preliminary hot-wall Chemical Vapour Deposition experiments (CVD) were carried out with 7. Copper films were deposited onto TiN-coated oxidised silicon wafers at a precursor vapourisation temperature of 50 degrees C and a deposition temperature of 145 degrees C. The films were characterized by SEM and EDX. (c) 2005 Elsevier B.V. All rights reserved.

L163 ANSWER 19 OF 22 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:776298 SCISEARCH Full-text

THE GENUINE ARTICLE: 848HF

TITLE: A new neighbouring-group reaction to form

pyridopyrrolbenzoxazinones

AUTHOR: Hamprecht G (Reprint); Zimmermann N; Weiss T D

CORPORATE SOURCE: BASF AG, Specialty Chem Res, D-67056

Ludwigshafen, Germany (Reprint)

gerhard.hamprecht@t-online.de

COUNTRY OF AUTHOR: Germany

SOURCE: EUROPEAN JOURNAL OF ORGANIC CHEMISTRY, (13 AUG 2004) No.

16, pp. 3551-3556.

ISSN: 1434-193X.

PUBLISHER: WILEY-VCH VERLAG GMBH, PO BOX 10 11 61, D-69451

WEINHEIM, GERMANY.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 22

ENTRY DATE: Entered STN: 24 Sep 2004

Last Updated on STN: 24 Sep 2004

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

ED Entered STN: 24 Sep 2004

Last Updated on STN: 24 Sep 2004

AB The azaphthalimide 2a is the first phthalimide oxygen found to undergo a

neighboring-group participation reaction with a vicinal N-phenyl carboxylic

acid chloride upon nucleophilic addition with alcohols. Owing to the free

rotation of the N-phenyl moiety, hetero-anellated benzoxazinones isomers

3 and 4 are accessible, whereby 3 is preferred to 4 as the pyridine

nitrogen in 2a preferentially activates the o-carbonyl group. Yields of up

to 92% were obtained when bases such as HCl acceptors were avoided by

heating 2a with alcohols. The reaction is restricted to primary and

secondary alcohols, as 2a is nonplanar in respect of the heterocyclic and

benzene moiety, which prevents tertiary alcohols attacking the

pyrrolidinedione carbonyl group. (C) Wiley-VCH Verlag GmbH & Co. KGaA,

69451 Weinheim, Germany, 2004.

L163 ANSWER 20 OF 22 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:428934 SCISEARCH Full-text

THE GENUINE ARTICLE: 549WU

TITLE: Twofold Pauson-Khand reaction of cyclic diynes in

supercritical ethylene

AUTHOR: Rausch B J; Becker H; Gleiter R (Reprint); Rominger F

CORPORATE SOURCE: Univ Heidelberg, Inst Organ Chem, Neuenheimer Feld 270,

D-69120 Heidelberg, Germany (Reprint); Univ Heidelberg,

Inst Organ Chem, D-69120 Heidelberg, Germany; BASF

Aktiengesell Forsch & Technol Chemikalien, GCI C, D-67056

Ludwigshafen, Germany.

COUNTRY OF AUTHOR: Germany

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SN10/510,476 Page 230 of 244 STIC STN SEARCH

SOURCE: SYNLETT, (MAY 2002) No. 5, pp. 723-726.

ISSN: 0936-5214.

PUBLISHER: GEORG THIEME VERLAG KG, RUDIGERSTR 14, D-70469 STUTTGART,

GERMANY.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 32

ENTRY DATE: Entered STN: 31 May 2002

Last Updated on STN: 31 May 2002

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

ED Entered STN: 31 May 2002

Last Updated on STN: 31 May 2002

AB The cyclic diynes 1 and 7-11 were allowed to react in supercritical (sc)

ethylene under Pauson-Khand conditions to give the tricyclic diketones 4

and 12-16 in yields between 47% and 15%, respectively. Our investigations

reveal that in the case of cyclic diynes the yields of Pauson-Khand

reactions in organic solvents can be tripled, by carrying out the syntheses

in supercritical ethylene. The geometry of the resulting sulfur

substituted diones 14 and 15 was determined by means of X-ray analysis on

single crystals. Additionally, the synthesis of the twofold tethered

cyclopentadienes 17 and 18 and the bis(tricarbonyl- manganese) complexes

19a and 19b from tricyclic dione 4 is presented.

L163 ANSWER 21 OF 22 JAPIO (C) 2007 JPO on STN

ACCESSION NUMBER: 1999-158155 JAPIO Full-text

TITLE: PRODUCTION OF CYCLIC UREA DERIVATIVE

INVENTOR: KRAMER ANDREAS; SIEGEL WOLFGANG DR

PATENT ASSIGNEE(S): BASF AG

PATENT INFORMATION:

APPLICATION INFORMATION

STN FORMAT: JP 1998-280002 19981001

ORIGINAL: JP10280002 Heisei

PRIORITY APPLN. INFO.: DE 1997-19743760 19971002

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined

Applications, Vol. 1999

ED 20020515

AB PROBLEM TO BE SOLVED: To provide a method for producing the subject compound

useful as an agricultural or pharmaceutical solvent or the like by which the

compound is continuously produced in a high yield by reacting a specific urea

derivative with a specific diketone, and hydrogenating the reaction product in

the presence of a metal-containing catalyst.

SOLUTION: A urea derivative of formula I (Y and Y' are each independently H, a

linear or branched 1-4C alkyl, a 3-12C cycloalkyl or the like) is reacted with

a diketone of formula II (X and X' are each independently H, hydroxy, a linear

or branched 1-4C alkyl, a 3-12C cycloalkyl, a 1-4C alkoxy or the like; Z is a

single bond, a 1-4C alkylene (substituted with a group X or X'), and the

reaction product is hydrogenated in the presence of a metal-containing

catalyst to provide the objective cyclic urea derivative of formula III in the

method for producing the cyclic urea derivative. The reaction of the urea

derivative with the diketone is preferably carried out in an aqueous solvent

or an aqueous organic solvent, especially preferably carried out in the

aqueous organic solvent containing 1-80 weight organic solvent based on the

educt mixture. COPYRIGHT: (C) 1999, JPO

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L163 ANSWER 22 OF 22 JAPIO (C) 2007 JPO on STN

ACCESSION NUMBER: 2001-031615 JAPIO Full-text

TITLE: PRODUCTION OF 3,5,5-TRIMETHYLCYCLOHEX-2-ENE-1,4-DIONE

INVENTOR: KLATT MARTIN JOCHEN; MUELLER THOMAS; BOCKSTIEGEL

BERNHARD DR

PATENT ASSIGNEE(S): BASF AG

PATENT INFORMATION:

PATENT NO KIND DATE ERA MAIN IPC

JP 2001031615 A 20010206 Heisei CD7C045-34

APPLICATION INFORMATION

STN FORMAT: JP 2000-189393 20000623

ORIGINAL: JP2000189393 Heisei

PRIORITY APPLN. INFO.: DE 1999-19929367 19990625

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined

Applications, Vol. 2001

ED 20020524

AB PROBLEM TO BE SOLVED: To provide a method of oxidizing (beta)-isophorone using a

manganese-salen complex, in high efficiency, also in high yield,

selectivity and space time yield each convertible to large industrial scale

even in case of high starting material concentration. SOLUTION: This method

comprises oxidizing 3,5,5-trimethylcyclohex-3-en-1- one with molecular oxygen

in the presence of a base, a solvent and a catalyst to produce the objective

3,5,5-trimethylcyclohex-2-ene- 1,4-dione; wherein a manganese-salen complex of the

formula [R is hydrogen or Cl; M is Mn(II) or Mn(III) (+)Cl(-)] is used as

the catalyst.

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=> file stnguide

FILE 'STNGUIDE' ENTERED AT 12:51:46 ON 05 FEB 2007

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Feb 2, 2007 (20070202/UP).

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=> d his ful

(FILE 'HOME' ENTERED AT 09:47:30 ON 05 FEB 2007)

FILE 'ZCAPLUS' ENTERED AT 09:47:56 ON 05 FEB 2007

E US2004-510476/APPS

FILE 'HCAPLUS' ENTERED AT 09:48:13 ON 05 FEB 2007

L1 1 SEA ABB-ON PLU-ON US2004-510476/APPS

SAVE TEMP L1 LA0476HCAPPP/A

FILE 'STNGUIDE' ENTERED AT 09:48:28 ON 05 FEB 2007

FILE 'WPX' ENTERED AT 09:48:31 ON 05 FEB 2007

L2 1 SEA ABB-ON PLU-ON US2004-510476/APPS

SAVE TEMP L2 LA0476WPXAPP/A

FILE 'STNGUIDE' ENTERED AT 09:48:52 ON 05 FEB 2007

D QUE L1

FILE 'HCAPLUS' ENTERED AT 09:49:35 ON 05 FEB 2007

D IBIB ED AB IND L1

FILE 'STNGUIDE' ENTERED AT 09:49:35 ON 05 FEB 2007

D QUE L2

FILE 'WPX' ENTERED AT 09:51:09 ON 05 FEB 2007

D IALL CODE L2

FILE 'STNGUIDE' ENTERED AT 09:51:11 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 09:53:40 ON 05 FEB 2007

FILE 'HCAPLUS' ENTERED AT 09:53:45 ON 05 FEB 2007

L3 TRA PLU-ON L1 1- RN : 53 TERMS

FILE 'REGISTRY' ENTERED AT 09:53:48 ON 05 FEB 2007

L4 53 SEA ABB-ON PLU-ON L3

SAVE TEMP L4 LA0476REGAPP/A

D SCAN

FILE 'STNGUIDE' ENTERED AT 09:54:41 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 09:56:56 ON 05 FEB 2007

L5 3 SEA ABB-ON PLU-ON L4 AND PMS/CI

D SCAN

FILE 'STNGUIDE' ENTERED AT 09:57:22 ON 05 FEB 2007

FILE 'ZREGISTRY' ENTERED AT 09:58:33 ON 05 FEB 2007

E TRIOXANE/CN

E TETRAOXANE/CN

FILE 'REGISTRY' ENTERED AT 09:59:11 ON 05 FEB 2007

E FORMALDEHYDE/CN

L6 1 SEA ABB-ON PLU-ON FORMALDEHYDE/CN

E PARAFORMALDEHYDE/CN

L7 1 SEA ABB-ON PLU-ON PARAFORMALDEHYDE/CN

E TRIOXANE/CN

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L8 1 SEA ABB-ON PLU-ON TROXANE/CN
E TETROXANE/CN
L9 1 SEA ABB-ON PLU-ON TETROXANE/CN
L10 4 SEA ABB-ON PLU-ON (L6 OR L7 OR L8 OR L9)
SAVE TEMP L10 LA0476MNO/A

FILE 'STNGUIDE' ENTERED AT 10:01:24 ON 05 FEB 2007
D QUE L10

FILE 'REGISTRY' ENTERED AT 10:01:56 ON 05 FEB 2007
D IDE L10 1-4

FILE 'STNGUIDE' ENTERED AT 10:01:57 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:03:09 ON 05 FEB 2007
L11 28004 SEA ABB-ON PLU-ON (50-00-0 OR 110-88-3 OR 293-30-1 OR
30525-89-4)/FM/CN
L12 27071 SEA ABB-ON PLU-ON L11 AND PMS/CI
SAVE TEMP L11 LA0476MNOIX/A
SAVE TEMP L12 LA0476MNOHMS/A

FILE 'STNGUIDE' ENTERED AT 10:04:50 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:05:33 ON 05 FEB 2007
SAVE TEMP L5 LA0476CIMPOL/A

FILE 'STNGUIDE' ENTERED AT 10:05:50 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:07:20 ON 05 FEB 2007
E TIO/MF
E TI/MF
L13 50 SEA ABB-ON PLU-ON L4 NOT (L5 OR L10)
L14 42 SEA ABB-ON PLU-ON L13 AND M/ELS
D SCAN

FILE 'STNGUIDE' ENTERED AT 10:09:14 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:12:36 ON 05 FEB 2007
L15 2 SEA ABB-ON PLU-ON L14 AND (AG/ELS OR NA/ELS)
L16 40 SEA ABB-ON PLU-ON L14 NOT L15
D SCAN L15
SAVE TEMP L16 LA0476CLMP/A

FILE 'STNGUIDE' ENTERED AT 10:13:39 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:14:10 ON 05 FEB 2007
L17 SCREEN 1964 OR 1966 OR 1984 OR 1991 OR 1956 OR 1965 OR 1983

FILE 'LREGISTRY' ENTERED AT 10:15:53 ON 05 FEB 2007
L18 STR

FILE 'REGISTRY' ENTERED AT 10:17:08 ON 05 FEB 2007
L19 50 SEA SSS SAM (L17 AND L18)

FILE 'LREGISTRY' ENTERED AT 10:18:36 ON 05 FEB 2007
L20 STR L18

FILE 'REGISTRY' ENTERED AT 10:19:13 ON 05 FEB 2007
L21 50 SEA SSS SAM L20
L22 50 SEA SSS SAM (L17 AND L20)

233

TETROXANE OR PARAFORMALDEHYD?

QUE ABB-ON PLU-ON POLYMERIZATION+PPT,OLD,NEW,NT/CT
L42 QUE ABB-ON PLU-ON POLYMERIZATION CATALYSTS+PPT,OLD,NEW,NT/CT
T

QUE ABB-ON PLU-ON POLYXYALKYLENES+PPT,OLD,NEW,NT/CT
L44 QUE ABB-ON PLU-ON "POLYXYALKYLENES, PREPARATION"+PPT,OLD,NEW
NT/CT

QUE ABB-ON PLU-ON POLYXYMETHYLENES+PPT,OLD,NEW,NT/CT
L45 QUE ABB-ON PLU-ON "POLYXYMETHYLENES, PREPARATION"+PPT,OLD,NE
W,NT/CT

FILE 'REGISTRY' ENTERED AT 10:46:14 ON 05 FEB 2007
L47 2 SEA ABB-ON PLU-ON L4 AND L11
L48 16 SEA ABB-ON PLU-ON L4 AND L24

FILE 'HCAPLUS' ENTERED AT 10:46:42 ON 05 FEB 2007
L49 1 SEA ABB-ON PLU-ON L48
D QUE

L50 1858 SEA ABB-ON PLU-ON L16 (L) L36
L51 144654 SEA ABB-ON PLU-ON L16 (L) CAT/RL
L52 217 SEA ABB-ON PLU-ON L50 AND L51
L53 45193 SEA ABB-ON PLU-ON L30
L54 10238 SEA ABB-ON PLU-ON L53 (L) CAT/RL
L55 3687 SEA ABB-ON PLU-ON L53 (L) (L38 OR L39)
L56 10791 SEA ABB-ON PLU-ON L53 (L) L37
L57 2657 SEA ABB-ON PLU-ON (L54 OR L56) AND L55
L58 3936 SEA ABB-ON PLU-ON L53 AND L42
L59 8834 SEA ABB-ON PLU-ON L5
L60 247485 SEA ABB-ON PLU-ON ((?POLYXYMETHYLEN?/OBI OR (POLY/OBI(1A)OXY
METHYLEN?/OBI) OR (POLYXY/OBI(1A)METHYLEN?/OBI)) OR (L43 OR
L44 OR L45 OR L46))
D QUE L40

L61 45115 SEA ABB-ON PLU-ON L40 (L5A)L39
L62 3796 SEA ABB-ON PLU-ON L10 (L) L39
L63 279 SEA ABB-ON PLU-ON (L59 OR L60 OR L61 OR L62) AND (L49 OR L52
OR L57 OR L58)
D QUE L44
D QUE L45
D QUE L46

L64 44 SEA ABB-ON PLU-ON L63 AND (L5 OR L38 OR (L45 OR L46))

FILE 'REGISTRY' ENTERED AT 10:53:56 ON 05 FEB 2007
L65 SET SMARTSELECT ON
SEL PLU-ON L5 1- NAME : 45 TERMS
SET SMARTSELECT OFF

FILE 'HCAPLUS' ENTERED AT 10:53:57 ON 05 FEB 2007
L66 35639 SEA ABB-ON PLU-ON L65
L67 32 SEA ABB-ON PLU-ON L63 AND L66
L68 4 SEA ABB-ON PLU-ON L63 AND (L32 OR L33)
SAVE TEMP L68 LA0476HCALN/A
D SCAN

FILE 'STNGUIDE' ENTERED AT 10:55:17 ON 05 FEB 2007

FILE 'HCAPLUS' ENTERED AT 10:55:59 ON 05 FEB 2007
L69 159 SEA ABB-ON PLU-ON L53 AND (L32 OR L33)
L70 11 SEA ABB-ON PLU-ON L69 AND (L59 OR L60 OR L61 OR L62)
L71 11 SEA ABB-ON PLU-ON L68 OR L70
L72 1 SEA ABB-ON PLU-ON L71 AND L32

235

FILE 'STNGUIDE' ENTERED AT 10:22:33 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:22:42 ON 05 FEB 2007
L23 50 SEA SSS SAM L20
D QUE STAT

FILE 'STNGUIDE' ENTERED AT 10:22:52 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:23:52 ON 05 FEB 2007
D QUE STAT
L24 81815 SEA SSS FUL L20
SAVE TEMP L24 LA0476PSET/A

FILE 'LREGISTRY' ENTERED AT 10:24:36 ON 05 FEB 2007
L25 STR L20

FILE 'REGISTRY' ENTERED AT 10:27:01 ON 05 FEB 2007
L26 50 SEA SUB-L24 SSS SAM L25
D QUE STAT

FILE 'STNGUIDE' ENTERED AT 10:27:54 ON 05 FEB 2007

FILE 'LREGISTRY' ENTERED AT 10:28:37 ON 05 FEB 2007
L27 STR L20

FILE 'REGISTRY' ENTERED AT 10:29:05 ON 05 FEB 2007
L28 50 SEA SUB-L24 SSS SAM (L25 OR L27)
D QUE STAT

FILE 'STNGUIDE' ENTERED AT 10:29:42 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 10:31:38 ON 05 FEB 2007
L29 16 SEA ABB-ON PLU-ON L4 AND L24
D QUE STAT L28

L30 53675 SEA SUB-L24 SSS FUL (L25 OR L27)
SAVE TEMP L30 LA0476RSET1/A

FILE 'STNGUIDE' ENTERED AT 10:33:21 ON 05 FEB 2007

FILE 'HCAPLUS' ENTERED AT 10:35:14 ON 05 FEB 2007
L31 1 SEA ABB-ON PLU-ON L1 AND L16
D SCAN

FILE 'STNGUIDE' ENTERED AT 10:35:32 ON 05 FEB 2007

FILE 'ZCAPLUS' ENTERED AT 10:37:30 ON 05 FEB 2007
L32 QUE ABB-ON PLU-ON LUINSTR, G7/AU
L33 QUE ABB-ON PLU-ON BASF/CS, SO, PA
L34 QUE ABB-ON PLU-ON AY<2003 OR PY<2003 OR PRY<2003 OR MY<2003
OR REVIEW/DT

QUE ABB-ON PLU-ON AY<2003 OR PY<2003 OR PRY<2003
L35 QUE ABB-ON PLU-ON ?DIKETO? OR (DI(V)KETO?) OR ?DIONE OR
L36 ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION? OR
?HEPTANDION?

QUE ABB-ON PLU-ON ?CATALY?
L37 QUE ABB-ON PLU-ON ?POLYXYMETHYLEN? OR (POLY(1A)OXYMETHYLEN?)
L38 OR (POLYXY(1A)METHYLEN?)
L39 QUE ABB-ON PLU-ON ?POLYMER OR HOMOPOLYMER? OR ?POLYMER?
L40 QUE ABB-ON PLU-ON FORMALDEHYD? OR TROXANE OR TETROXANE OR

234

L73 11 SEA ABB-ON PLU-ON (L71 OR L72)
SAVE TEMP L73 LA0476HCALN/A

L74 0 SEA ABB-ON PLU-ON L1 NOT L73
L75 50 SEA ABB-ON PLU-ON L64 OR L67
L76 48 SEA ABB-ON PLU-ON L75 NOT L73
L77 48 SEA ABB-ON PLU-ON L76 AND L34
SAVE TEMP L77 LA0476HCAB/A

FILE 'STNGUIDE' ENTERED AT 10:58:44 ON 05 FEB 2007

FILE 'HCAPLUS' ENTERED AT 11:07:54 ON 05 FEB 2007
L78 90552 SEA ABB-ON PLU-ON L12
L79 81 SEA ABB-ON PLU-ON L78 AND (L49 OR L52 OR L57 OR L58)
L80 79 SEA ABB-ON PLU-ON L79 NOT L73
L81 75 SEA ABB-ON PLU-ON L80 AND L34
L82 49 SEA ABB-ON PLU-ON L81 NOT L77
L83 1 SEA ABB-ON PLU-ON L82 AND L10
L84 23 SEA ABB-ON PLU-ON L82 AND L40

FILE 'STNGUIDE' ENTERED AT 11:10:32 ON 05 FEB 2007

FILE 'ZCAPLUS' ENTERED AT 11:12:02 ON 05 FEB 2007
E C08G002-00/IPC
E E111+ALL
E C07F0011-00/IPC
E E148+ALL

QUE ABB-ON PLU-ON TI OR TIO OR ZR OR ZRO OR VO OR V OR CRO2
L85 OR CR OR MOO2 OR MO OR WO2 OR V OR MNO2 OR MN OR REO2 OR RE OR
FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT OR CU OR ZN OR CD
OR HG OR SN OR SWO OR FBO OR FB

QUE ABB-ON PLU-ON TITAN? OR ZINC? OR HAPN? OR VANAD? OR
L86 CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA? OR
MANGANES? OR RHENIUM? OR RHEENAT? OR IRON OR FERRIC OR FERRIUM
OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR RHODAT? OR
IRIDIUM? OR IRIDAT?

QUE ABB-ON PLU-ON NICKEL OR FALLAD? OR PLATINAT? OR PLATINUM?
L87 OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIUM? OR
CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN OR LEAD

FILE 'REGISTRY' ENTERED AT 11:25:02 ON 05 FEB 2007

FILE 'USPATFULL, USPAT2' ENTERED AT 11:25:12 ON 05 FEB 2007
L88 2441 SEA ABB-ON PLU-ON L5
L89 231 SEA ABB-ON PLU-ON L88 AND (L45 OR L46)
L90 255 SEA ABB-ON PLU-ON L88 AND L16
L91 21 SEA ABB-ON PLU-ON L89 AND L90
L92 12 SEA ABB-ON PLU-ON L91 AND L34
SAVE TEMP L92 LA0476USP/A

FILE 'STNGUIDE' ENTERED AT 11:26:39 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 11:27:02 ON 05 FEB 2007
D QUE L30
D QUE L24
L93 0 SEA SSS SAM L20
L94 0 SEA SSS FUL L20
SAVE TEMP L94 LA0476WPI5/A

FILE 'STNGUIDE' ENTERED AT 11:28:14 ON 05 FEB 2007

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FILE 'STNGUIDE' ENTERED AT 11:32:16 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 11:39:29 ON 05 FEB 2007

L95 1 SEA ABB-ON PLU-ON 0111-66402/MCN
D TRI
E 00222/RIN
L96 688 SEA ABB-ON PLU-ON 00222/RIN
D TRI
E 00222/SRIN
L97 21 SEA ABB-ON PLU-ON 00222/SRIN
D TRI

FILE 'STNGUIDE' ENTERED AT 11:43:39 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 11:44:02 ON 05 FEB 2007

FILE 'ZCAPLUS' ENTERED AT 11:44:24 ON 05 FEB 2007
L98 QUE ABB-ON PLU-ON C08G0002-06/IPC
L99 QUE ABB-ON PLU-ON C08G0002-08/IPC

FILE 'WPIX' ENTERED AT 11:45:43 ON 05 FEB 2007

L100 QUE ABB-ON PLU-ON (E05-F02 OR E05-L OR E05-M OR E05-N)/MC
L101 QUE ABB-ON PLU-ON ((A922 (P) A960) (P)Q121)/M0,M1,M2,M3,M4,M5,
M6

FILE 'STNGUIDE' ENTERED AT 11:47:14 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 11:47:47 ON 05 FEB 2007
L102 3485 SEA ABB-ON PLU-ON (L85 OR L86 OR L87) (10A) L36
L103 812 SEA ABB-ON PLU-ON L100 AND L36
L104 15 SEA ABB-ON PLU-ON L101 AND (L102 OR L103)
L105 1 SEA ABB-ON PLU-ON L104 AND (L98 OR L99)
D TRI
L106 QUE ABB-ON PLU-ON F1887/FILE
D HIS20
L107 1 SEA ABB-ON PLU-ON L104 AND L106
L108 1 SEA ABB-ON PLU-ON L101 AND L100 AND L106
L109 1 SEA ABB-ON PLU-ON L104 AND (L38 OR L40)
L110 3 SEA ABB-ON PLU-ON L104 AND (L32 OR L33)
SAVE TEMP L110 LA0476P1NV/A
L111 2301 SEA ABB-ON PLU-ON (L104 OR L105 OR L106 OR L107 OR L108 OR
L109)
L112 15 SEA ABB-ON PLU-ON (L104 OR L105) OR (L107 OR L108 OR L109)
L113 12 SEA ABB-ON PLU-ON L112 NOT L110
L114 11 SEA ABB-ON PLU-ON L113 AND L34
D TRI 8-11
L115 11 SEA ABB-ON PLU-ON L114 AND L36
D KWIC 5
SAVE TEMP L115 LA0476WPIB/A

FILE 'STNGUIDE' ENTERED AT 11:55:24 ON 05 FEB 2007

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:56:50 ON 05 FEB 2007
L116 2328 SEA ABB-ON PLU-ON L5
L117 3668 SEA ABB-ON PLU-ON (L85 OR L86 OR L87) (10A) L36
L118 381 SEA ABB-ON PLU-ON L117 (L) L37
L119 0 SEA ABB-ON PLU-ON L116 AND L118
L120 11873 SEA ABB-ON PLU-ON L65
L121 11991 SEA ABB-ON PLU-ON L120 OR L38

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L159 14 SEA ABB-ON PLU-ON L154 OR L156 OR L157 OR L158
L160 14 SEA ABB-ON PLU-ON L159 NOT L152
L161 2 SEA ABB-ON PLU-ON L160 AND L34
SAVE TEMP L161 LA0476HULB/A

FILE 'STNGUIDE' ENTERED AT 12:31:14 ON 05 FEB 2007

D QUE STAT L24
D QUE STAT L30
D QUE NOS L77
D QUE NOS L92
D QUE STAT L92
D QUE STAT L94
D QUE L115
D QUE NOS L128
D QUE NOS L134
D QUE L161
D QUE NOS L143

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:41:55 ON 05
FEB 2007
L162 71 DUP REM L77 L92 L115 L128 L161 L143 (3 DUPLICATES REMOVED)

ANSWERS '1-48' FROM FILE HCAPLUS
ANSWERS '49-58' FROM FILE USPATFULL
ANSWERS '59-69' FROM FILE WPIX
ANSWERS '70-71' FROM FILE EMBASE

FILE 'STNGUIDE' ENTERED AT 12:42:06 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:42:36 ON 05 FEB 2007

D IBIB ED AB HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 12:42:38 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:43:17 ON 05 FEB 2007

D IBIB ED AB HITIND HITSTR 2-48

FILE 'STNGUIDE' ENTERED AT 12:43:40 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:45:26 ON 05 FEB 2007

D IBIB AB HITSTR 49-58

FILE 'STNGUIDE' ENTERED AT 12:45:32 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:46:22 ON 05 FEB 2007

D IALL ABEQ TECH ABEK 59-69

FILE 'STNGUIDE' ENTERED AT 12:46:36 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:48:49 ON 05 FEB 2007

D IBIB ED AB IND 70-71

FILE 'STNGUIDE' ENTERED AT 12:48:51 ON 05 FEB 2007

D QUE NOS L73
D QUE L110
D QUE NOS L126
D QUE NOS L152
D QUE NOS L143
D QUE NOS L145

FILE 'HCAPLUS, WPIX, BIOSIS, EMBASE, CABA, SCISEARCH, JAPIO' ENTERED AT

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L122 0 SEA ABB-ON PLU-ON L118 AND L121
L123 5 SEA ABB-ON PLU-ON L118 AND L40
L124 0 SEA ABB-ON PLU-ON L117 AND (L116 OR L121)
L125 5 SEA ABB-ON PLU-ON L119 OR L122 OR L123 OR L124
D SCAN
L126 2 SEA ABB-ON PLU-ON (L116 OR L117 OR L120 OR L121) AND (L32 OR
L33)
SAVE TEMP L126 LA0476MBEINV/A
D SCAN
L127 5 SEA ABB-ON PLU-ON L125 NOT L126
L128 1 SEA ABB-ON PLU-ON L127 AND L34
SAVE TEMP L128 LA0476MBEB/A
D SCAN
D TRI

FILE 'STNGUIDE' ENTERED AT 12:03:14 ON 05 FEB 2007

FILE 'JAPIO' ENTERED AT 12:04:12 ON 05 FEB 2007

L129 974 SEA ABB-ON PLU-ON (METAL OR (L85 OR L86 OR L87)) (15A) L36
L130 13151 SEA ABB-ON PLU-ON L39 (SA) L37
L131 34 SEA ABB-ON PLU-ON L129 AND L130
L132 844 SEA ABB-ON PLU-ON L65
L133 0 SEA ABB-ON PLU-ON L131 AND (L132 OR L40 OR L38)
L134 844 SEA ABB-ON PLU-ON L65
L135 5 SEA ABB-ON PLU-ON L129 AND (L134 OR L40 OR L38)
L136 5 SEA ABB-ON PLU-ON L133 OR L135
D SCAN
L137 0 SEA ABB-ON PLU-ON L136 AND (L37 OR ACTIVAT?)
L138 201 SEA ABB-ON PLU-ON L129 AND L37
L139 64 SEA ABB-ON PLU-ON L138 AND L39
L140 5 SEA ABB-ON PLU-ON L129 AND ACTIVAT?
L141 3 SEA ABB-ON PLU-ON L140 AND L39
L142 65 SEA ABB-ON PLU-ON L139 OR L141
L143 0 SEA ABB-ON PLU-ON L142 AND (L132 OR L40 OR L38)
SAVE TEMP L143 LA0476JAPB/A
L144 2 SEA ABB-ON PLU-ON L129 AND (L32 OR L33)
D SCAN
L145 2 SEA ABB-ON PLU-ON L144 AND (L37 OR ACTIV?)
SAVE TEMP L145 LA0476JAPIN/A

FILE 'STNGUIDE' ENTERED AT 12:10:31 ON 05 FEB 2007

FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, JICST-EPLUS, APOLLIT, CABA,
SCISEARCH, CONFSCI, DISSABS' ENTERED AT 12:11:58 ON 05 FEB 2007
L146 10824 SEA ABB-ON PLU-ON (METAL OR (L85 OR L86 OR L87)) (7A) L36
L147 772 SEA ABB-ON PLU-ON L146 (15A) (ACTIVAT? OR L37)
L148 0 SEA ABB-ON PLU-ON L147 AND L38
L149 8 SEA ABB-ON PLU-ON L147 AND L40
L150 19047 SEA ABB-ON PLU-ON L65
L151 0 SEA ABB-ON PLU-ON L147 AND L150
L152 6 SEA ABB-ON PLU-ON L146 AND (L32 OR L33)
SAVE TEMP L152 LA0476HULINV/A
D SCAN
L153 14 SEA ABB-ON PLU-ON L148 OR L149 OR L151 OR L152
L154 8 SEA ABB-ON PLU-ON L148 OR L149 OR L151
D SCAN
L155 1888 SEA ABB-ON PLU-ON L146 AND (ACTIVAT? OR L37)
L156 14 SEA ABB-ON PLU-ON L155 AND L40
L157 0 SEA ABB-ON PLU-ON L155 AND L150
L158 0 SEA ABB-ON PLU-ON L155 AND L38

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12:51:08 ON 05 FEB 2007
L163 22 DUP REM L73 L110 L126 L152 L145 (2 DUPLICATES REMOVED)
ANSWERS '1-11' FROM FILE HCAPLUS
ANSWERS '12-13' FROM FILE WPIX
ANSWER '14' FROM FILE BIOSIS
ANSWER '15' FROM FILE EMBASE
ANSWERS '16-17' FROM FILE CABA
ANSWERS '18-20' FROM FILE SCISEARCH
ANSWERS '21-22' FROM FILE JAPIO

FILE 'STNGUIDE' ENTERED AT 12:51:15 ON 05 FEB 2007

FILE 'HCAPLUS, WPIX, BIOSIS, EMBASE, JAPIO, CABA, SCISEARCH' ENTERED AT 12:51:24 ON 05 FEB 2007

D IBIB ED AB 1-22

FILE 'STNGUIDE' ENTERED AT 12:51:30 ON 05 FEB 2007

FILE 'STNGUIDE' ENTERED AT 12:51:46 ON 05 FEB 2007

FILE HOME

FILE ZCAPLUS

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FILE LAST UPDATED: 4 Feb 2007 (20070204/ED)

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FILE LAST UPDATED: 4 Feb 2007 (20070204/ED)

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FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Feb 2, 2007 (20070202/UP).

FILE WPX

FILE LAST UPDATED: 29 JAN 2007 <20070129/UP>

MOST RECENT THOMSON SCIENTIFIC UPDATE: 200707 <200707/DW>

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

>>> IPC Reform reclassification data for the backfile is being loaded into the database during January 2007. There will not be any update date (UP) written for the reclassified documents, but they can be identified by 20060101/UPIC. <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:

http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE

<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE

http://www.stn-international.de/stndatabases/details/ipc_reform.html and

<http://scientific.thomson.com/media/scpdf/ipcrdwp1.pdf>

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX PLEASE SEE

http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

>>> New and revised Manual Codes went live in Derwent World Patents Index To view the lists of new, revised and retired codes for both CFI and EPI, please go to:

<http://scientific.thomson.com/dwpi-manualcoderevision> <<<

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5

DICTIONARY FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

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FILE ZREGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5

DICTIONARY FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE LREGISTRY

LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 1 Feb 2007 (20070201/PD)

FILE LAST UPDATED: 1 Feb 2007 (20070201/ED)

HIGHEST GRANTED PATENT NUMBER: US7171694

HIGHEST APPLICATION PUBLICATION NUMBER: US2007028338

CA INDEXING IS CURRENT THROUGH 1 Feb 2007 (20070201/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 1 Feb 2007 (20070201/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2006

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2006

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 1 Feb 2007 (20070201/PD)

FILE LAST UPDATED: 1 Feb 2007 (20070201/ED)

HIGHEST GRANTED PATENT NUMBER: US2006275693

HIGHEST APPLICATION PUBLICATION NUMBER: US2007028319

CA INDEXING IS CURRENT THROUGH 1 Feb 2007 (20070201/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 1 Feb 2007 (20070201/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2006

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2006

FILE MEDLINE

FILE LAST UPDATED: 3 Feb 2007 (20070203/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate

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substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 31 January 2007 (20070131/ED)

FILE EMBASE

FILE COVERS 1974 TO 5 Feb 2007 (20070205/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE JAPIO

FILE LAST UPDATED: 5 FEB 2007 <20070205/UP>

FILE COVERS APRIL 1973 TO OCTOBER 26, 2006

>>> GRAPHIC IMAGES AVAILABLE <<<

FILE PASCAL

FILE LAST UPDATED: 5 FEB 2007 <20070205/UP>

FILE COVERS 1977 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE IN THE BASIC INDEX (/BI) FIELD <<<

FILE JICST-EPLUS

FILE COVERS 1985 TO 29 JAN 2007 (20070129/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

FILE APOLLIT

FILE LAST UPDATED: 22 DEC 2005 <20051222/UP>

FILE COVERS 1973 TO 2005

THE APOLLIT FILE IS NO LONGER BEING UPDATED. *****

** USE FILE RAPRA FOR UP-TO-DATE POLYMER INFORMATION **

FILE CABA

FILE COVERS 1973 TO 5 Feb 2007 (20070205/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

The CABA file was reloaded 7 December 2003. Enter HELP RLOAD for details.

FILE SCISEARCH

FILE COVERS 1974 TO 1 Feb 2007 (20070201/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

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FILE CONFSCI

FILE COVERS 1973 TO 3 Jan 2007 (20070103/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS

FILE COVERS 1861 TO 26 JAN 2007 (20070126/ED)

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